



ESTABLISHED 1859.

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THIS JOURNAL is regularly supplied by subscription to the whole of the Members of SIXTEEN PHARMACEUTICAL SOCIETIES in the British Empire

In our recently re-arranged offices we have made provision of a floor with desks, works of reference, and a file of THE CHEMIST AND DRUGGIST for the convenience of subscribers to this journal, especially for those resident abroad or in the provinces when they may be visiting London on business.

Catalogues and price-lists issued by houses connected with the drug-trade are kept on file, and may be consulted; and we also suggest that this provision may be useful to employers who may wish for a central place to meet assistants whom they wish to see before engaging. We have also a room capable of accommodating twenty or thirty persons which we shall be glad to lend free for suitable trade-meetings; but we shall be obliged if subscribers who wish to avail themselves of the latter offer will advise the Publisher in advance. The Catalogues can be consulted any day from 10 A.M. to 4 P.M., and on Saturdays up till 12.30.

CONTENTS: Vol. LV. No. 13.

PAGE	PAGE		
A Catastrophe	512	Eudesmol	534
American Pharmaceutical Association	527	French News	508
Association Affairs	523	Gazette	512
Australasian News	509	Irish News	507
Bankruptcy Report	511	Legal Querries	529
Birth	522	Legal Reports	511
British Association	513	Marriages	522
Business Changes	515	Miscellaneous Inquiries	529
Colonial and Foreign News	510	New Companies and Company News	512
Confectioners' Exhibition	525	Observations and Reflections ..	517
Correspondence	529	Personalities	526
Crushed Linseed	522	Pharmaceutical Prospects ..	516
Deaths	522	Photographic Notes	528
Deeds of Arrangement	512	Photographic Salon	525
Editorial Comments:—		Scotch News	507
Ships' Medicine-chests	518	South African News	510
Horse-blisters	519	Trade Notes	524
Dispensers Wanted for the Army	520	Trade Report	530
Notes	520	Wholesale Druggists' Cricket League	526
English News	534		

"THE CHEMISTS' AND DRUGGISTS' DIARY"

FOR 1900

Is Now in Preparation.

It will be used
Every day of the year,
All the year round,
In thousands of pharmacies
In every country in the world.

Advertisers should get Particulars about it
From the PUBLISHER, 42 Cannon Street, E.C.
And put Smart Announcements
Of their Goods in it

Summary.

THE French pharmacist is grumbling too (p. 503).

A PHARMACY ORDINANCE has been promulgated for the Island of Seychelles (p. 510).

AN interesting analysis of Brunner, Mond & Co.'s annual profits is referred to on p. 517.

COMMERCIAL CRUSHED LINSEED is not what it should be, according to Mr. E. Dowdard (p. 522).

THE COMMISSIONS to medical men discussion seems to be over. We give the latest views on p. 522.

MR. BRAXTON HICKS has been upset by a cough-linctus, the morphine in which had changed (p. 521).

BLACKBURN CHEMISTS lead the winter-war with a denunciation of the Pharmaceutical Society (p. 523).

TWO EXHIBITIONS are reported on. The confectioners (held in the Agricultural Hall) and the photographic salon (p. 525).

IN an interview with Mr. Hawkins we have obtained further instruction for young chemists starting in business (p. 516).

NEW MEDICAL SCALES for merchant and passenger ships have been prepared by the Board of Trade, and are referred to on p. 518.

M. SCHEURER KESTNER, the French chemist, who, while Vice-President of the Senate, started the Dreyfus agitation, died this week (p. 508).

THE FEDERATION OF CHEMISTS' ASSOCIATIONS has issued its programmes for the winter, recommending consideration of topical questions (p. 523).

IN THE ARTICLE on horse-blisters hints are given as to the utility of these compounds, and the kinds which should be used for different troubles (p. 519).

A PLAISTOW OIL AND COLOURMAN has been fined 40/- for adding methylated spirit to methylated finish, and selling the mixture without a licence (p. 511).

ONE of Lord Rosebery's ancestors was a physician in the sixteenth century, and his mortar has been discovered at Hawick. We give a sketch of it on p. 521.

A FURTHER REPORT of the American Association, with abstracts of some papers, is given on p. 527. Professor Prescott has been elected President for next year.

THE Army medical authorities at Aldershot are anxious to secure the services of a number of dispensers to take the place of army-compounders in the event of war (p. 520).

OUR PARIS CORRESPONDENT reports that only seventeen English exhibitors out of 1,720 have intimated their withdrawal from the Paris Exhibition, and 140 have applied for increased space (p. 508).

THE last cricket-match for the Wholesale Druggists' Cup was played last Saturday. An exciting game between the Kepler and Burgoyne elevens resulted in a win for the former, who get the cup (p. 526).

DR. THOMAS STEVENSON, as a public analyst, gave a certificate, and in the witness-box admitted that the work was done by an assistant; consequently the certificate was held not to be enforceable (p. 506).

THE POISONS BILL for Victoria is again before the Legislative Council, and contains matters which will interest home traders. The Hon. Mr. Grimwade made a strong speech on the second reading of the Bill, which is reported on p. 509.

THE CAPE PHARMACY BILL, we learn by cablegram, was passed by the Legislative Council on Tuesday. It will require proprietary medicines containing poisons to be labelled with the name of the poison and the word "Poison" (p. 510).

THE BRITISH ASSOCIATION meeting at Dover has been a success. We give portraits of Sir Horace Brown, President of the Chemical Section, and Mr. George King, President of the Botanical Section, with abstracts of their addresses and abstracts of the more interesting papers communicated to different sections (p. 513).

English News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Chemical Laboratory for Middlewich.

Mr. F. Bettley Cooke, Hon. Secretary for the Victoria Technical Schools, Middlewich, has received a communication from Dr. Ludwig Mond, expressing his willingness to defray the cost of providing and fitting up a chemical laboratory in connection with that institution. Dr. Mond has already given a substantial sum to the Building Fund of the schools. The County Council has promised lectures, and a number of students are ready to join the classes.

Worcester Hospitality.

During the Three Choirs Festival held at Worcester last week a luncheon was provided each day in the Guildhall for a numerous body of guests, at which the Chemist-Mayor of Worcester (Mr. J. A. Steward) presided. Amongst those partaking of the mayoral hospitality were such distinguished society lights as the Countess Branchamp, the Earl and Countess of Coventry, Viscount and Viscountess Cobham, the Duc and Duchesse d'Orleans, and the Comte and Comtesse de Paris. Mr. and Mrs. Steward also entertained upwards of 270 members of the chorus and orchestra to a steamboat-trip to Pixham Ferry.

The Dinner to Mr. Wootton.

Colonel and Sheriff Clifford Probyn is, we understand, to preside at the complimentary dinner to Mr. A. C. Wootton in the Hotel Metropole on October 5. The secretaries of the committee (157 Queen Victoria Street, E.C.) ask us to state that gentlemen who have arranged to be present, and have not yet sent in their cabinet-photographs for the album which is to be presented to Mr. Wootton, should forward them by an early post to the secretaries.

"Salad Oil."

Mr. J. Kear Colwell, the public analyst for Clerkenwell, in his quarterly report to the local Vestry on September 15, reported that he had taken samples of salad oil and found them to contain a large percentage of mineral oil—in one case as much as 95 per cent. "What may be sold as salad oil has, as far as I am aware, never been defined," said Mr. Colwell, "but," he added, "I should have no hesitation in condemning the use of any oil containing indigestible mineral oil." One of the samples of salad oil analysed was alleged to have caused sickness, and he thought that, if the Vestry could take no action in the matter, a little publicity might put people using the oil on their guard. Mr. Gibson thought it an important matter, and hoped this report would have due effect, not only upon the users of the dangerous stuff, but also upon those who made the preparation. Moreover, the inspectors under the Food and Drugs Act were directed to make a special note of this, with a view of prosecuting persons who sold such stuff under the guise of "salad oil."

Chemist Antiquaries.

Messrs. Gibson & Son, chemists, of Hexham, have made some models of the Tritstool, or Sanctuary Chair, which is one of the curiosities of Hexham Abbey. As there are only two Sanctuary Chairs in England—that at Hexham and one at Beverley—they are relics much prized by antiquaries. The chair at Hexham stood in the centre of the Sanctuary, which extended a mile around the church. Anyone who attempted to seize a malefactor within the boundaries of the Sanctuary was liable to a heavy fine, while those laying hands on a fugitive who had reached the stool were guilty of an offence unpardonable by any pecuniary sacrifice.

Disinfectants in Clerkenwell.

The Clerkenwell Vestry again had before them at their meeting on September 14 the matter of distributing disinfectants amongst the parishioners. The Public Health Committee reported that they saw no reason for altering their

previous resolution—viz., that the indiscriminate distribution of disinfectants be stopped, and that carbolic acid only be given on an order of the medical officer. Mr. Crawle Smith thought this very unfair to poor people. Because the medical officer was opposed to giving the disinfectants, there was no reason why the Vestry should keep to the hard-and-fast line. It was to him like the Dreyfus case. (Laughter.) Mr. Wildhore was sorry that Mr. Smith should have to travel so far for a simile, though, at the same time, he (the speaker) did not see that any harm was done by giving the people disinfectants. Dr. Glaister: As I said before, it is only killing one stink with another. It is placing the poor in a false position by covering up a bad smell rather than finding the source of it and removing it. Mr. Watson dissented from the doctor's opinions, but Mr. Gihson (Vice-Chairman of the Public Health Committee) supported his views. It was better, he said, for poor people to come to the Town Hall with a complaint as to bad smells, and for an inspector to go and ascertain the cause, than for a bottle of carbolic to be given, which would simply cover up the bad smell and be innocuous to the disease. Mr. Smith: We do not say it will kill disease, but it may prevent it. Dr. Glaister: I order carbolic acid where I think it is necessary, and of course the Vestry is master of the situation. All I say is, that it is unwise to order an indiscriminate distribution of disinfectants. They have been proved to be dangerous in more senses than one. Further discussion followed, but ultimately the Chairman put the question to the vote, and the majority upheld the medical officer's opinion.

Experimenting with Chloroform.

At the Birkenhead Police Court on September 18, Albert William Jenks, apprentice to Mr. T. Fore, chemist and druggist, Market Street, was charged with attempting to commit suicide. Mr. Fore stated that the young man had been with him about eighteen months. On the previous day prisoner went to his bedroom, and did not come down either for tea or supper. Shortly after 10 o'clock witness called him, but did not receive any reply. He went up to the room and found the door locked, whereupon he sent for the police, who burst open the door. Jenks was found unconscious. Under the bed was a 2-lb. bottle of chloroform, from which a large quantity had been taken. Prisoner was removed to the Borongh Hospital, where he recovered. Prisoner told the Magistrates he had been suffering from neuralgia, and must have become unconscious through inhaling the chloroform for the purpose of easing the pain. He had not the least idea of committing suicide. Mr. Fore said prisoner had no friends, but he would look after him, and upon that understanding prisoner was discharged.

The "Carbolic" List.

On September 18, Samuel Hall, a collier, at Ashton-under-Lyne, quarrelled with his wife, and in her presence took a drink of carbolic acid. He died in an hour.

On September 19 Mrs. Brownhill, aged 60, the wife of a market-gardener at Sale, near Manchester, took some carbolic acid, and died before the arrival of a doctor.

John Tomley, a labourer, of Colleyhurst, Manchester, quarrelled with his sweetheart, and, on September 17, swallowed 2 oz. of carbolic acid, dying in less than half an hour.

An inquest at Doncaster on September 14, on the body of Caroline Warden, wife of a grocer's assistant, revealed the fact that deceased, while in a depressed condition, drank a quantity of carbolic acid and died.

In the course of an inquest at Yarmouth on September 15, Dr. Moxon called attention to the fact that carbolic acid, though a most fatal poison, which causes many deaths every year in England, is not included in the poisons schedule. Although a concentrated poison, grocers or anybody else can sell it to the public. As a matter of fact he had often seen it carelessly kept in ginger-beer bottles.

At an inquest held at Battersea on September 19, on the body of a young woman who poisoned herself with carbolic acid, Coroner Hicks elicited that the husband obtained a jugful of carbolic acid from a Vestry employé during the drought in August for 2d. This indiscriminate distribution

of a deadly poison, the Coroner said, was most reprehensible.

Chlorodyne-poisoning.

On September 12 a woman named Atwood was admitted to the Portsmouth Hospital suffering from the effects of chlorodyne-poisoning. Atwood was found unconscious in her room, and on a search being made by a police-constable a printed wrapper was discovered, in which the bottle had evidently been wrapped, and subsequently a poison-bottle labelled "Chlorodyne — Poison. Timothy White & Co. (Limited), Portsmouth," was found outside the garden-wall.

Poisoned by Strychnine.

An inquest was held at Derby on September 14 concerning the death of Janie Kingston, a nurse at the Derbyshire Women's Hospital, Derby. Deceased was discovered dead, and a doctor who was called in was of opinion that she had died from the effects of strychnine-poison. She had access to the poison-cupboard in the operating-theatre, and a bottle containing about 1 oz. of strychnine was missing.

Drank the Wort-cure.

At the Harlesden Petty Sessions on September 14, Annie Smith was charged with attempting to commit suicide by taking a quantity of collodion. Accused was reported to have taken poison in a glass of beer at a public-house, and told the police she took it from the bottle produced, which bore the label of Mr. Perfect, chemist, Craven Park Road. Dr. Frame deposed to administering an emetic, and finding the woman had taken about half an ounce of a poisonous mixture of gun-cotton, ether, rectified spirit, and acids. A police-officer was sent for. Mr. Perfect said he sold the application to the prisoner, who asked for something to cure the warts on the hands of her children. It contained a mixture of collodion and salicylic acid. He put a label on the bottle, "Not to be taken." The woman was bound over to be of good behaviour.

Drug-contracts.

The following workhouse contracts have been effected:—

St. Albans.—Mr. J. Busby, Harpenden, chloride of lime, 12s. per cwt.; cotton-wool, 1s. 2d., lint, 1s. 2d. per lb.; fullers' earth, 20s. per cwt.; zinc ointment, 1s. 4d. per lb.; methylated spirit, 3s. per gal.; spirit of salt, 3½d. per lb.; strapping, 3s. 6d. per dozen yards; carbolic, 3s. per gal. and 1s. 4d. per lb.; iodoform gauze, 4s. 6d. per dozen yards; boracic ointment, 1s. 4d. per lb.; iodine paint, 4s. 6d., tow, 5d., hazeline, 3s. 6d. per lb.; enemas, 2s. each; violet powder, 8d., castor oil, 7½d. per lb.; trusses, 2s. 6d. each; feeding-bottles, 4s. per doz.; cod-liver oil, 11d. per lb.; vaseline, 9d. per lb.; Condy's fluid, 1ls. per doz. bottles. Messrs. Pike & Sons, brimstone, 10s. 6d. per cwt. Mr. A. Cobhy, disinfecting-powder, 14s. per cwt.; disinfecting-soap, 18s. per cwt.

Braintree.—Mr. J. Rowtell, for carbolic soap at 1l. 8s. 6d. per cwt., and linseed-meal at 14s. 9d. per cwt.

Cannock.—Mr. S. Parkes, Cannock, saltpetre, 3d. per lb. Mr. L. Adams, Cannock, Calvert's No. 9 soap, 27s. 9d. per cwt.; Calvert's carbolic soap, 29s. per cwt.; brimstone, 1d. per lb.

Dartford.—The Lawes Chemical Company (Limited), 59 Mark Lane, E.C., for their disinfecting-fluid, at 19s. 6d. per drum of 5 gals.

Gravesend.—Messrs. A. Bond & Son, for crushed linseed at 13s. 6d. per cwt. stone brimstone at 6s. 6d. per cwt., and linseed oil at 1s. 6d. and 1s. 7d. per gal.

Liverpool.—Messrs. Evans, Sons & Co., for drugs; Messrs. Ayrton & Saunders, for druggists' sundries; Messrs. F. Wilkinson & Co., for drysaltery and Messrs. C. A. Moody, for methylated spirit.

Southampton.—Messrs. Wride & Co., Southampton, for drugs at 20 per cent. off Messrs. Barron, Harveys & Co.'s current list.

Todmorden.—Mr. D. T. Boocock, Hebden Bridge, for drugs.

Westhampton.—Mr. S. Garland, for McDougall's paraffin-soap, at 29s. 6d. per cwt.; McDougall's carbolic-soap (No. 2), at 26s. per cwt.; and night-lights, at 3s. 8d. per doz. boxes.

At the meeting of the Hove Town Council on September 15 it was reported that no tender had been received in answer

to the advertisements for the supply of drugs, surgical instruments, &c., for the hospital, and it was decided to leave it to the medical officer of health to obtain these articles on the best terms he could.

At the meeting of the Warrington Board of Guardians on September 14, Mr. Pilling drew attention to the charges made by Dr. Watkins for the supply of iodine and quinine, which he considered were extravagant. The Clerk said that in the town the medical men got their medicines from the druggists, and they paid the latter direct, but Dr. Watkins had to supply himself. Mr. Pilling: He gets the profit instead of the druggist. The account was eventually passed.

Chemists' Licences.

At Tavistock Brewster Sessions last week, Mr. Thomas E. Peace, chemist, was granted an off-licence for the sale of wines and spirits.

Fires.

A fire broke out on September 15 at Taylor's Drug-stores, Lynn Street, West Hartlepool. The whole of the goods stored in the basement of the building, where the fire originated, were destroyed, the building itself having a narrow escape.

A slight fire occurred on September 16 at the City Mills, High Street, Stratford, the property of Messrs. Howards & Sons, manufacturing chemists. We learn from the firm that the fire was of a trifling character, some empty casks in the yard and a small quantity of wood being burned. The damage from fire and water was considerably under 100*l*.

On September 15 a tank of tar belonging to Messrs. Hardman & Holden, chemical-manufacturers, Manchester, while standing on a railway-siding at Miles Platting, took fire, but the outbreak was speedily quelled by the city fire-brigade. On the same date the fire-brigade belonging to the Clayton aniline-works rendered valuable assistance at a fire which had broken out on the premises of a gut-manufacturer at Newton Heath.

A Blameless Powder.

At an inquiry held by the Ipswich Borough Coroner on September 13 into the death of a 5-months-old child named Bristo, the mother of deceased deposed that the child was teething, and she administered a teething-powder which she had procured from Mr. Jackson, chemist, Felixstowe Road, Ipswich. Next day the child appeared drowsy, and died the day after, before medical attendance could be procured. Mr. C. W. Cannock, surgeon, was of opinion that the child had died from natural causes. The drowsiness was caused by exhaustion, accelerated by diarrhoea. The Coroner having sent for a powder similar to that spoken of by the mother, the medical witness examined it and pronounced it perfectly harmless. A verdict in accordance with the medical testimony was given.

Not Hood's.

At Pontefract West Riding Court on September 9, Elizabeth O'Brien was charged with having obtained 1s. by false pretences from Emily Earnshaw, of Featherstone. Complainant said O'Brien called at her house, and after one or two preliminary remarks between them opened a bag containing some bottles and a bill headed "Hood's Sarsaparilla." She said she had got a quantity of Hood's 2s. 9d. bottles to sell at 1s., but only one was to be sold to each person, so that poor people might have an opportunity of purchasing. Witness bought a bottle, but each dose she took made her feel sick. Complainant's husband said when his wife showed him the bottle he said at once it was not Hood's, and she had been taken in, and Mr. E. M. Chaplin (Wakefield City Analyst) told the difference between Hood's sarsaparilla and the mixture. They were not the same in smell and taste. Defendant said her husband made the mixture and sold it. She told the woman it was a grand thing for indigestion, but never mentioned Hood's. Charles Nugent O'Brien, defendant's husband, described himself as a herbalist. He said his mixture consisted of sarsaparilla, burdock, and other ingredients—a medicine for the blood. He was a clerk in an infirmary before he took up his present business. He condemned Hood's to sell his own stuff. The Bench

found the prisoner guilty, and sentenced her to seven days' imprisonment, to date from the day of arrest, so that she was liberated.

Charges of Stealing.

At Wellingborough Police Court on September 9, a lad named Frank Harris was summoned for stealing a wooden pipe, value 6d., the property of Mr. J. T. Davey, chemist and druggist, Irthingborough. The Bench dealt with the case under the First Offenders Act, and bound the lad over to come up for judgment if called upon.

At the Southampton Police Court on September 13, Henry Spieyer and Thomas Hold were brought up under a writ of *habeas corpus* from Dorchester gaol, on a charge of being concerned together in stealing 9d. from the till in the shop of Mr. Charles Rendall, chemist, Southampton, on May 25. The prisoners were stated to be now undergoing sentence for a similar offence committed at Parkstone. Evidence for the prosecution having been given, prisoners, who pleaded not guilty, were committed for trial at the Quarter Sessions.

At Lambeth Police Court on September 16, William Field was charged, on remand, with stealing from the shop, 152 Camberwell Road, two metal match-boxes, value 1s., the property of George Robert Turner, a chemist. Upon returning about midnight on September 8 to close a fanlight which had been accidentally left open the prosecutor was surprised to see the prisoner rush out and bolt down the road. Prisoner was caught by a police-constable, and the stolen property found in his possession. He was sentenced to one month's hard labour.

At Reading Police Court on September 13, Geo. Makepiece was charged with stealing, at various dates, three bottles of embrocation, value 4s. 4d., four thermometers, in cases, value 17s. 6d., and a bottle of emulsion, value 2s. 6d., belonging to Mr. Fredk. Tunbridge, chemist and druggist, Reading; and James Shefford was charged with receiving two bottles of embrocation, value 6s. 10d., knowing them to have been stolen. Both prisoners pleaded guilty. Frank Tunbridge, prosecutor's son, deposed that Makepiece was in the employ of prosecutor as a porter and general messenger for five or six weeks, and during that period a great many articles had been missed. Prisoners were each sentenced to one month's imprisonment with hard labour.

Took Nothing.

On September 17 the warehouses of Mr. J. T. Leslie, wholesale druggist, Sheffield, were broken into by thieves, and a cheque-till taken from the office into the adjoining yard and there smashed open. No money was obtained, however, and excepting three crossed cheques there was nothing but stock to take, and as far as can be discovered nothing else has been tampered with.

Not Welcomed.

A bullock which was being driven to market took temporary refuge in the pharmacy of Mr. G. Lines, pharmaceutical chemist, Hertford. Before eviction could be accomplished the window-blinds were damaged, and a number of bottles on the counter and shelves smashed.

Early Closing.

In conjunction with the other tradesmen of the town, the chemists of Woodhall Spa have agreed to close their places of business on Wednesdays at one o'clock from November 1 until March next.

The Boy in Charge.

One of the witnesses in a case of larceny tried before the High Wycombe Borough Justices on September 16 was a chemist in the town, who, before he gave evidence, expressed the hope that he would be dealt with quickly, as he had left his shop in charge of a small boy, and he feared that in his absence someone might be poisoned.

The Fraudulent-parcel Fiend Again.

In our issue of August 12 (page 294) we commented on a fraud that was being perpetrated on householders in the West-end district by means of a bogus medicinal tonic brought by a messenger in the absence of the occupier, and for which payment was demanded from the servant or caretaker on delivery. The swindle is still in evidence, as

Messrs. Savory & Moore, pharmaceutical chemists, New Bond Street, W., writing to the *Times* this week, warn the public against a similar fraud. They intimate that the individual in this case selects a house that is evidently shut up, represents that he is a messenger from Savory & Moore, that the parcel he brings with him is to be forwarded at once by whoever is in charge of the house to the owner; but that there is so much to be paid, without which the parcel is not to be left. In several cases which have come to their notice he has been paid what he asked. In one case he was given a sovereign to get changed, as the caretaker had not enough change by her to pay him. Needless to say he did not appear again. The contents of the parcel which he leaves are generally an empty tin or something else equally valueless.

A New Illuminant.

The township of Hunmanby, a village between Scarborough and Bridlington, will in future be lighted with electroid gas, a new illuminant, which it is claimed by the Scarborough District Lighting Company (Limited) will revolutionise the lighting of villages, urban districts, and country mansions. Electroid gas is acetylene with the admixture of inert matter and a proportion of oxygen. Its manufacture is simple, and the gas can be delivered through any ordinary gas-main pipes at the ordinary pressure. It gives a brilliant light of great purity, and can be measured by means of gas-meters and charged for in the same way as is the custom where ordinary coal-gas is used. It is proposed to light a considerable number of villages throughout Yorkshire with the new gas.

Neglecting the Factory Act Rules.

At the Cardiff Police Court on September 19, Bridget Mahoney was summoned for neglecting to wear a faceguard in Messrs. Elliott & Co.'s aerated-water works, and Hannah Milton was also summoned for neglecting to wear on both arms a full-length gauntlet. For the defence it was contended that the faceguard was prejudicial to the eyesight; besides there were guards on the machines which minimised the risk of injuries. The gauntlet also was a most inconvenient contrivance, and interfered with the amount of work defendant was able to do. Protection in this case was afforded by a guard on the machine which acted automatically. The inspector of factories pointed out that when the bottles were carried away from the machine the worker was unprotected, and then accidents happened. A fortnight before a girl had been seriously injured at the factory, and ten days after another girl had her arm badly lacerated. These girls were asked to protect themselves, and on the second visit they dared the inspector. The Stipendiary imposed a fine of 10s and costs in each case, not so much, he said, with the view of punishing the present offenders as to warn others that the rules made for their protection must be rigidly observed.

Analysis by Deputy.

At Southwark Police Court on September 20, several Italian ice-cream vendors were summoned for selling ice-cream which was injurious to health. In the first case a certificate by Dr. Stevenson, the Home Office analyst, was put in, which stated that the samples of ice-cream contained 28 millions of micro-organisms to 1 c.c., and that among them were at least 200 specimens of the bacillus *Coli communis*. Dr. Stevenson was called, and admitted that, although he wrote the certificate, he did not actually make the analysis, but it was done by his assistant, Dr. Pates. Mr. Philcox, for the defence, therupon submitted that the case must fail, inasmuch as the Act required that the analysis must be made by the public analyst appointed by the public authority, and there was no provision for a deputy. After considerable argument, Mr. Slade (magistrate) said he should have accepted the certificate without any suspicion, believing it to be the analysis of Dr. Stevenson; but when Dr. Stevenson said he had nothing to do with it he was bound by the Act of Parliament. He thought the analysis should be made by the person appointed by the proper authorities; therefore the case must be dismissed. Mr. Hawker, for the prosecution, withdrew the other summonses, but said he might ask the Magistrate to state a

case An analyst holding a dozen appointments could not do all the work himself. Mr. Philcox: Then he should not take the appointments.

The Alleged Inaccurate Dispensing.

At last week's sitting of the Fulham Vestry reference was again made to the recent prosecution of chemists at the West London Police Court for alleged inaccurate dispensing, and Mr. O'Brien suggested that the sample of the drug should be sent to Somerset House for analysis, because it was, in his opinion, very important that it should be known whether the Vestry's analyst or Professor Attfield was in the right. Mr. Easton explained that a sample of the drug could only be sent to Somerset House on the initiative of the Magistrate; wherupon Mr. O'Brien remarked that if they could not rely on their analyst they should look around and obtain someone else. It would be needless for the Vestry to take prosecutions if they could not rely on the testimony of their analyst. He moved that the sample of the drug supplied by Mr. Andrew, pharmaceutical chemist, of 781 Fulham Road, be sent to an independent analyst for examination. Mr. Williams suggested that the sample should be sent to the Pharmaceutical Society; but Mr. O'Brien's proposition was agreed to.

Won't Do It Again.

At the Greenwich Police Court on September 19, a gunner in the Royal Artillery, named Slaughter, was charged, on remand, with attempting to commit suicide by taking poison. Prisoner was out walking with his sweetheart and drank something from a bottle, after which he was taken ill. He was conveyed to the hospital, and found to be suffering from poisoning by camphorated chloroform. On promising not to repeat the offence he was discharged.

Took Laudanum but Recovered.

At the Southampton Police Court on September 20, James McConnell, a clerk, was charged with attempting to commit suicide by drinking laudanum. The prisoner had lost his situation through drink, and lived unhappily with his wife in consequence of his intemperate habits. He drank the laudanum on Friday, last week, but was at once given an emetic by Dr. Ransford, and taken to the infirmary, where he recovered. Mr. F. B. Wride, chemist and druggist, High Street, Shirley, recognised the bottle from which the poison was taken by the accused as one labelled at his firm's establishment, but they had been unable to trace the purchaser. The prisoner pleaded for a chance, but as he was evidently in bad health the magistrates remanded him for eight days.

Irish News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

A New Start.

Mr. H. C. Meyrick, L.P.S.I., lately with Messrs. Hamilton, Long & Co., Dublin, is about to open business on his own account at 28 Shop Street, Drogheda.

Pharmaceutical Education.

The Pharmaceutical Schools of Botany and Materia Medica, 67 Lower Mount Street, Dublin, will reopen on Tuesday evening, October 3, and the Chemistry School on the evening following.

Carbolic for Whisky.

Arthur Lenagh, the Armagh farmer who drank a quantity of carbolic acid out of a bottle handed him in mistake for whisky by a neighbour named Nugent, died on September 14. The case was referred to in last week's issue. Nugent was arrested, but is now out on bail.

Drug-contracts.

Messrs. P. A. Leslie & Co., Dublin, have been appointed contractors for drugs and medicines to the Ardee Union. They have also received an explanation from the Guardians that samples of medicines adversely reported upon by Sir

Charles Cameron had been a considerable time in stock before they were sent for analysis.

A Show of Sundries.

Mr. Wright, manager to Messrs. F. Schutze & Co., 89 Southwark Street, London, S.E., is to be at the Central Hotel, Dublin, from September 26 to October 2, with an exhibit of chemists' sundries and Christmas goods, and at the Imperial Hotel, Belfast, from October 3 to 7.

Analysts' Appointments.

Mr. R. Barklie has been appointed drug-analyst to the Londonderry Union.

At a meeting of the Newry Board of Guardians on September 16, Mr. Robert Barklie, Belfast, was appointed analyst, at a remuneration of 15*l.* per year.

The Antrim Guardians had three applicants for the position of analyst—Mr. R. Barklie, Mr. R. F. Blake, and Mr. W. C. Carter—all of Belfast. Mr. Blake obtained the post, defeating Mr. Barklie by 24 votes to 13. The salary is 10*l.* per annum.

An Official List of Drug-analysts.

At last week's meeting of the Newry Urban Council a letter was received from the Local Government Board enclosing the names of the following persons as qualified analysts of medicine:—R. Barklie, Belfast; R. F. Blake, Belfast; Sir Charles Cameron, Dublin; E. D. Cameron, Dublin; John F. Hodges, Belfast; J. F. W. Hodges, Belfast; Ewan Lapper, Dublin; J. R. Leebody, Londonderry; D. J. Omahony, Cork; C. R. C. Tichborne, Dublin; and Thomas Woods, Parsonstown. The Urban Council objected to having a list thrust upon them, and decided to ask on what grounds their own nominee, Mr. Charles McMullen, had been superseded.

Scotch News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Autumn flowers.

After the usual fortnightly visit to the Botanic Gardens on September 16, the students of the West of Scotland College of Pharmacy went out Hyndland way with their principal, Mr. Barrie, seeking other specimens. A large number of plants were collected, the chief being *Solanum Dulcamara*, *Taraxacum officinale*, *Achillea Millefolium*, *Cytisus Scoparius*, *Linaria repens*, *Convolvulus arvensis*, *Arctium Lappa*, *Polygonum bistorta*, *Rubus fruticosus*, *Hypericum perfoliatum*, *Ranunculus acris*, and *Brassica alba*.

Materia Medica at St. Andrews.

At the meeting of the University Court last Saturday it was resolved, after a lengthy discussion, that a qualifying course of practical materia medica be given at St. Andrews, under the supervision of Professor Marshall, for the next five years.

Edinburgh District Chemists' Golf Club.

The annual autumn holiday prize-competition was held at Leven on September 18, in delightful weather. Ten members competed for a very handsome first prize, presented by Mr. G. D. Mackay, the Hon. President, and second and third Club prizes. The Gibson Handicap medal was also played for. The following were the prize-winners:—

Hon. President's prize and Gibson medal,	96
Mr. T. Miller (106-10)	96
Second prize, Mr. A. W. W. Wilson (scr.) ...	99
Third prize, { Mr. H. D. Alexander (scr.) ... 101 } (a tie	101
{ Mr. W. C. Baker (106-5) ...	101

Mr. Claude F. Henry had the best aggregate score for the year, and is therefore the winner of the Gibson medal and gold charm. After dinner and the presentation of the prizes by the Captain, the members engaged in friendly matches; while Mr. Wilson and Mr. Stott played off the final tie in the hole-and-hole tournament. The result was a victory for Mr. Wilson.

French News.

(From our Paris Correspondent.)

PROFESSOR MASSOL has been appointed Director of the Montpellier School of Pharmacy in place of M. Jeanjean, whose death we recently reported.

FOR 1900.—The first stone of the new Academy of Medicine, in the Rue Bonaparte, next to the Ecole des Beaux Arts, was laid last week. It is to cost about a million francs (40,000*l.*). It is expected to be ready next year, in time for the Medical Congress.

BOYCOTTING THE EXPOSITION.—The French press is not over-impressed by the threats of withdrawal, especially as there is no intention of official abstention on the part of any Governments. The *Temps* says: "The slight effervescence has had no serious result nor any importance whatever." The *Matin* states that out of the 530 intending exhibitors from the United Kingdom and 1,200 from the colonies, seventeen appear to have joined the *Daily Mail* crusade, and in twenty-four hours the British commissary received 140 requests for more space on account of these withdrawals. The *Matin* fauces the seventeen protesting firms will see that they have made a mistake, and will be glad to seek re-admission.

THE PLAGUE AT OPORTO.—M. Delcassé, Minister of Foreign Affairs, has received the following telegram from MM. Calmette and Salembini:—

The cases of plague are much more numerous than indicated by the statistics. We have been able to find out that the declarations are incomplete. We have made in two days four *post-mortems* of persons found dead without being cared for. The microbe of the plague isolated from the blood is very virulent, and kills a mouse when inoculated. There are three serious cases at hospitals being treated by Yersin's serum. The experiment is proceeding favourably.

They conclude by condemning the sanitary cordon, which is stated only to be caused by jealousy on the part of Lisbon.

THE NEW PHARMACY BILL laid before the Chamber of Deputies is "backed" by four pharmacist-deputies—MM. Astier, Bachimont, Charles Bernard, and Morel. It bears a strong resemblance to the Bill passed by the Senate in 1894 (which never became law). Some new features may, however, be noted—the proposal to abolish the herb-alists by issuing no new diplomas after 1904; the suggestion that all specialities sold in sealed packets to pharmacists ready for retail should bear the name and the dose of their active ingredient; the proviso that adulterated or defective drugs and medicaments should be destroyed after the case has been proved against the vendor. The Bill is likely to meet with opposition, but there is a certain coolness and lack of enthusiasm in its reception by pharmacists.

FRENCH SCIENTISTS AT BOULOGNE.—The French Association for the Advancement of Science has met at Boulogne, under the presidency of Dr. Brouardel, Dean of the Paris Faculty of Medicine. In his introductory address Dr. Brouardel spoke of the progress of science, each of whose conquests "enlarges the scope of our intellectual domain, and prepares for the future other discoveries by which future generations will benefit as we have benefited by our forefathers." The special subject of his discourse was preventive medicine, and the President referred to the discoveries in that domain from the time of Jenner to Pasteur. Until 1884, when Dr. Brouardel was sent to Toulon to combat the cholera, real disinfection was practically unknown. In 1892 the Parisian death-rate was 24 per 1,000 per annum: it is now 18; the difference is made up entirely of cases of preventable disease. In 1875-1888 the mortality in the French home-army from typhoid was 28 per 1,000. In 1889-1896 it was 12. Reference was next made to Lister's work on antiseptic surgery, and, after alluding to Behring and Roux's discovery of diphtheria antitoxin, Dr. Brouardel insisted on the necessity of taking up arms against tuberculosis, which claims its 150,000 victims annually in France. In regard to this disease, England

owes her comparatively low death-rate to the vigorous demolition of slums and rookeries. Insalubrious houses, want of air and light, overcrowding, and northern exposure are all favourable to the propagation of consumption. M. Loir, Secretary of the Association, read the annual report, and pointed out that this Congress has a special *éclat* from its meeting with the elder sister, the British Association. M. Galante, Treasurer, tabled a satisfactory balance-sheet, the receipts including 49,470*l.* of members' subscriptions and 43,054*l.* from investments, while the total expenditure was 67,984*l.*, leaving 26,491*l.* balance for the year.

DEATH OF M. SCHEURER-KESTNER.—This distinguished chemist and Senator died on September 19. M. Scheurer-Kestner was an Alsatian by birth, having been born at Thann on February 11, 1833. He was the originator of the Dreyfus agitation, as it was while he was a Vice-President of the Senate that he became convinced of the incorrectness of the condemnation of Dreyfus, and said so. Of his career as a chemist, we may state that in 1853 he went to Paris to study the science. During the sixties he was an active member of the Paris Chemical Society, and published a book on the "Elementary Principles of the Chemical Theory of Types applied to Organic Compounds." He also contributed papers to the Paris Academy of Sciences, and was a prolific writer on social and political subjects. He was a leading shareholder and managing director of the Society Anonyme des Fabriques de Produits Chimiques de Thann, Alsace (formerly Charles Kestner & Co.). M. Kestner was his father-in-law, and on his death in 1870 M. Scheurer-Kestner assumed the management of the factory. He devoted a good deal of attention to bettering the lot of his workpeople, and in 1865 assisted to establish a co-operative supply association for their use. He took an active part in the war of 1870-71. Since that time he took a somewhat prominent, though unpretentious, part in French politics. He was known as the last French Deputy of Alsace, having been a Deputy in the French Parliament for that province when it was ceded to Germany after the war, and he strongly objected to the province being given to Germany. The immediate cause of M. Scheurer-Kestner's death was uremia. Of the part that he played in the Dreyfus affair it is unnecessary for us to speak further, having dealt with it fully in our issue of February 5, 1898, when we printed a portrait of this distinguished man.

PROFESSOR EDMOND DUPUY, of Toulouse (Vice-President of the 1900 International Congress of Pharmacy), gave an address on the "Pharmacist from a Social Point of View" to the South-Western Federation of Pharmacists on the occasion of their recent Jubilee. He regrets that the public seem to ignore the long and costly studies of the French pharmacist, and, treating him as a shopkeeper, haggle and bargain on every possible occasion. While quite true that his profits are large, his skill and responsibility, like the doctor's, merit full recompense. Professor Dupuy deprecated unprofessional advertising by posters, &c., cutting of prices, wholesale manufacture of galenicals, and other departures from the steady-going home-made pharmacy of fifty years ago, and suggested that all ready-compounded medicaments should be analysed by the pharmacist himself after purchase. He also considered that French pharmacists should profit by their knowledge of analysis to make themselves indispensable to local doctors and the municipal hygienic authorities; and concluded his address with the words of Cap (referring to the good the pharmacist so frequently does by stealth):—

Thus will the charitable, compassionate, and even disinterested pharmacist, whenever the price of his services will exact from an unfortunate a sacrifice beyond his means, shun the reproach of selfishness and greed of gain, and uphold, in the eyes of all beholders, the dignity of an art which considers such sentiments as only part of its daily duties.

The address was an interesting and eloquent *exposé* of the labours and trials of the average modern pharmacist; and when one sees a titular and Government-paid professor thus keep in touch with his struggling retail colleagues, one feels that his election as Vice-President of the Congress is wise. Professor Dupuy is a popular man among the pharmacists of the South-West, and has given much time to the study of trade-interests and the drafting of pharmacy-laws.

Australasian News.

Chiefly from "The Chemist and Druggist of Australasia" for August, 1899, of which copies may be obtained from the Publisher, 42 Cannon Street, E.C., at 6d. each.

ADOPTION OF THE B.P., 1898.—The Pharmaceutical Society of Tasmania has issued a circular to all medical practitioners in Tasmania to the effect that on and after October 1 prescriptions will be dispensed in accordance with the 1898 B.P. unless distinctly and explicitly ordered otherwise.

CHLORODYNE-LOZENGES.—The Pharmacy Board of N.S.W. have had their attention called to the fact that the confectioners in Sydney sell more chlorodyne-lozenges in a day than a chemist does in six months. The Chairman is going to look into the matter with a view to prosecution for unqualified selling of poison.

N.Z. CUSTOMS DECISION.—The following were lately gazetted with others:—Bottles (stoppered, glass), for perfumed salts, as glassware, 20 per cent.; charges for chemical fire-eugines, as chemicals n.o.e., 20 per cent.; paper, dentists', Japanese bibulous, as n.o.e., free; oil of hyacinth, artificial, as essential oils, free; synthetic perfumes (crystals), free.

MELBOURNE COLLEGE OF PHARMACY.—The annual dinner of the students of the College, held on July 13, was a great success. Mr. Sidney Plowman was Chairman of the dinner, and the company present numbered considerably over 100, being made up mainly of past and present students. The C.D.A. publishes an excellent flash-light photograph of the diners in the August issue.

KOLA-NUT TONIC.—A Crown prosecution recently took place against Mr. W. M. Stevenson, manager of Fisher & Co., George Street, Sydney, for selling kola-nut tonic which contained, according to the Government analyst, "0.02 per cent. of kola and $\frac{1}{2}$ gr. strychnine." It was contended that the preparation was a strychnine rather than a kola tonic. The case was dismissed on the ground that the purchaser asked for kola-nut tonic and got it. There were other similar cases either withdrawn or postponed.

PHARMACY BOARD, N.S.W.—At the annual election the two new members were Messrs. J. C. Hallam and C. A. Marshall. Considerable interest was taken in the election, as it was looked upon as a contest between the Pharmaceutical Society and the Registered Pharmacists' Society. The two successful candidates are active members of the Pharmaceutical Society, whilst the unsuccessful ones—Messrs. R. A. Rose and G. S. C. Wells—are, the former President, and the latter an active member, of the Registered Pharmacists' Society.

V.P.C.—The committee appointed for the purpose of considering the details of the proposed Victorian Pharmaceutical Conference have resolved to ask the Council to allow the Conference to be held under the auspices of the Pharmaceutical Society of Australasia. The object of the Conference will be to supply formulas for non-official preparations so as to secure uniformity, and so that medical men may not be under the necessity of prescribing certain medicinal specialities.

PHARMACEUTICAL SOCIETY OF S. AUSTRALIA.—The annual meeting of this Society was held on July 11. There was only a small attendance, which the President (Mr. White) said was an indication that the members were contented with the work of the Council. The Society was making good progress. Speaking of the education progress of the year, the President reminded the meeting of a further incentive for work within the scope of pharmacy students in the shape of the forthcoming industrial exhibition promoted by the Chamber of Manufactures. In this exhibition the Chamber are to give special prizes for the best collection of chemical products and medicinal preparations, two divisions being open to persons under 21. The balance-sheet was subsequently adopted.

RECIPROCITY.—The August number of the C.D.A., as a further contribution to this subject, gives the opinions it has obtained from the leaders in pharmacy on this question. A series of questions was sent to each member of the Pharmacy

Boards of Australasia, the replies to which show that the majority are in favour of accepting at once, as a basis for reciprocity, the registers of each colony. The chief stumbling-block is the acceptance of those persons registered in New South Wales on the strength of having been in the business for a twelve-month. A number of years experience, averaging eight years, is suggested by various writers as the best way of meeting these cases. In regard to the continuation of the present separate examinations, the majority are in favour of a simultaneous examination conducted at different centres, but the minority in favour of the present system contains some very weighty names. The indications from a summary of the replies seem to show that any reasonable scheme would be accepted, and the C.D.A. suggests tentatively an Australasian modified examination for men registered but not examined.

VICTORIA POISONS BILL.—This Bill, which failed to get through last session, was reintroduced into the Legislative Council on July 5, and was read a second time on July 11. It is the same as the last, with two slight additions. It provides that the principal Act of 1890 shall not apply to the sale of any poison forming part of the prescription of a duly qualified medical practitioner and compounded by a medical practitioner or pharmaceutical chemist, nor shall it apply to homoeopathic medicines, patent or proprietary medicines, photographic materials (other than cyanide of potassium), cyanide of potassium used for mixing purposes if sold in quantities of not less than 56 lbs., nor to medicines dispensed by veterinary surgeons for animals under their treatment, nor to poisons used for the destruction of vermin, nor to vermin-killers, fly-papers, or poisons sold by wholesale dealers. The Bill prescribes the conditions of sale, and the third clause requires that patent or proprietary medicines containing poison should be labelled prominently with the name of the poison or poisons contained in them, and the quantities thereof. The Hon. F. S. Grimwade is to move various amendments to the measure, including omission from the prescription clause of the words "according to the prescription of a duly qualified medical practitioner." He will also move the omission of the third clause, and will propose a new clause to give the Governor power to make regulations as to the keeping of poisons. Mr. Grimwade, in his speech before the Legislative Council, said few people knew what a dangerous thing cyanide of potassium was, and the extraordinary way in which it was kept. At a mine within 100 miles of Melbourne, it was bought in 56-lb. packages, which were very often left open the whole week through. Children or other persons might pick it up and eat it, as it was exactly like sugar. He had with him a bottle containing 1 lb., or 7,000 gr., enough to kill 2,000 persons. He was afraid there would be a terrible fatality one day, unless something were done to regulate the storage as he proposed to. He pointed out also the dangerous provision in Clause 4 which exempts packets of poisonous mixtures for the destruction of vermin other than vermin mentioned in the previous paragraph, whereby storekeepers, confectioners, grocers, or any small trader would be enabled to sell these vermin-killers. A number of deaths, probably hundreds, in England, America, and the Colonies had been caused by vermin-killer and "Rough-on-Rats," and he would like to make it absolutely illegal for others except chemists to sell them. He described the clause dealing with patent and proprietary medicines as the one novel feature of the Bill. He thought it did not go far enough. If the Government had simply introduced a Bill dealing effectively with patents and proprietaries they would have done good work, because one of the greatest evils which confronted all English communities was the freedom with which these medicines were sold. Only a few of them were really patented—one of them being chlorodyne—and there was practically no restriction as to their sale. He quoted at length the better regulations in force for the sale of these medicines in Germany and France. England and her colonies and the United States of America are the only countries where people are allowed to flood the market with these alleged remedies, many of which he considered to be worthless. If the Government had appointed a commission to inquire into this matter he would have supported them and worked for them, because he considered the sale of these articles one of the evils of the present day. When the Bill went into Committee he would endeavour to have the clause struck out.

South African News.

The Cape Pharmacy Bill.

(By Cable from our Correspondent.)

Cape Town, September 20, 1.40 P.M.

The Bill to amend the Medical and Pharmacy Act has passed the Legislative Council.

All the proposals submitted by the Pharmaceutical Society, and on behalf of the drug-trade generally, have been mostly agreed to by the amendment of the clauses dealing with counter-prescribing, the sale of Dutch medicines, and the like.

The proprietary and patent medicines clause has been finally amended so that on the label of each article must appear the name of the poisonous ingredient, and the word "Poison," but the quantity of the poison (as originally provided by the Bill to be stated on the label) will not be required.

It is proposed that the new Act shall take effect in six months' time, but the actual date has not been fixed, and Sir Alfred Milner will await the advice of the Medical Council and the Board of Pharmacy before announcing in the official *Gazette* the date on which it will come into force.

EDITORIAL NOTE.—It was not expected that the proprietary-medicine clause of the Bill would be passed in its original form, strong protests against it having been communicated to the Premier and others who had charge of the Bill. The pharmacists of the colony were united against several points in the measure, which they rightly felt would seriously interfere with their business, and place them at a disadvantage in selling counter-specialities. All these objections have been provided for, and pharmacists retain in the Board of Pharmacy sole control of their own affairs, subject to the agreement of the Governor of the colony in certain matters, chiefly the election of the Board and the amendment of the poisons-schedule. For the benefit of home houses who send out medicinal specialities we may give the contents of the poisons-schedule, as manufacturers must label articles containing any of these as required by the Act.

Division I. (to be signed for as well as labelled, &c.).

Arsenic and its preparations; aconite, atropine, strichnine, and all poisonous alkaloids and their salts; cantharides; corrosive sublimate and its preparations; cyanide of potassium and all metallic cyanides and their preparations; tartar emetic; ergot of rye and its preparations; prussic acid and its preparations; savin and its oil; vermin-killers, if preparations of poisons the preparations of which are in Division I. of this schedule.

Division II. (to be labelled, &c.).

Carbolic acid; almonds, essential oil of (unless deprived of prussic acid); belladonna and its preparations; cantharides, tincture, and all vesicating liquid preparations of; chloroform; chloral hydrate and its preparations; cocaine; nux vomica and its preparations; opium and morphia and their preparations, and preparations of poppies; oxalic acid; precipitate, red (red oxide of mercury); precipitate, white (ammoniated mercury); vermin-killer (see Division I.). Compounds containing poisons prepared for the destruction of vermin, if not subject to the provisions of Division I., are in Division II.

TAXING MOTHER SEIGEL.—The representatives of Messrs. A. J. White (Limited) have been compelled by the Cape Government to pay the stamp and licence tax now in force in that colony, amounting on the capital of 1,000,000L. to 500L. As already reported in these columns, the company refused to pay the tax claimed by the authorities, seeing that it covered all their capital, and, with a view to evading the tax, made some alteration whereby Messrs. Bartholomew & Dixon acted as controllers of the South African business. But this step was unsuccessful, and the day before the case was to have come into court for hearing they paid the amount.

PHARMACEUTICAL SOCIETY OF RHODESIA.—A meeting of this Society was held at Messrs. Smart & Copley's office in Buluwayo on August 10. Mr. Moore was voted to the chair, and referred to the sudden death of the President of the Society, Mr. F. J. Byrne. It was unanimously agreed to appoint Mr. Cattell (Lennon, Limited) as President until the annual meeting in October, when it is proposed that a dinner shall be held. Messrs. Moore, Smart, and Bickel were appointed a committee to make arrangements for the dinner. It was agreed to adopt THE CHEMIST AND DRUGGIST as the official organ of the Society, and Mr. W. Dawn Copley, the Secretary, was instructed to communicate with other chemists in the colony to join the Society. Mr. Moore reported, in regard to the Medical and Pharmacy Ordinance, that he had had an interview with the secretary to the Administrator, and had ascertained that nothing further would be done with regard to the Ordinance until the next meeting of the Legislative Council. It is expected that the various suggestions for the amendment of the measure which have been made by medical men and pharmacists will then be fully considered. The Society decided to contribute five guineas to the Chamber of Commerce fund for fighting the Customs case against the Government.

Colonial and Foreign News.

FIRE.—A great fire occurred at Yokohama on the night of August 12, resulting in the destruction of some five thousand houses. The total loss was estimated at five million yen (1 yen = 2s).

PHARMACY IN THE SEYCHELLES.—We learn from a Seychelles correspondent that an Ordinance for regulating the practice of pharmacy in the Seychelles was promulgated in July last. The main object of the Ordinance is to restrict the sale of poisons to those who are licensed for that purpose, and only persons who have pharmaceutical qualification, such as the Minor certificate, will be licensed. General storekeepers will be permitted to sell certain simple medicines, including quinine.

BUSINESS CHANGES.—Mr. James Watson, pharmaceutical chemist, Mahé, Seychelles, announces that he is no longer manager of the public pharmacy established at the hospital of Mahé, and that he opened a pharmacy on August 14 in Market Street, Mahé. The announcement states further that Mr. Watson has had over thirty-five years' experience in Mauritius and Australia.—Messrs. Paranjapye, Athalye & Co., chemists, druggists, and veterinary supply agents, have removed from 180 Kalhadevi Road to Pallow Road, Market Post, Bomhay.

THE OPIUM-TRADE.—The *Straits Budget* reports that at Hong-Kong on August 12 the price of Indian opium was advancing, and the Chinese were buying very freely. The competition of the Chinese drug with the Indian article is less keen, and the sale of the latter is now likely to increase. The Indian drug is very much adulterated on its way from the place of production; the price has risen to nearly that of Patna, and the outturn of hoiling is somewhat less. At Calcutta a new trade with London has cropped up in opium, for which thirty or forty chests per month is required. As regards the last sentence, the opium which is brought here from Calcutta, we may explain, is in transit for San Francisco, where it is used for smoking-purposes by the Chinese residents.

IMPURE JAPANESE DRUGS.—An important topic of conversation in Japanese drug-circles at present is the sophistication of drugs and medicines, which is chiefly due to inefficiency and negligence in the inspection of apothecaries' shops by Government officials. Of course, it is well known that drugs and chemicals bearing the stamp of the Imperial Laboratory have been subjected to strict examination, and are according to *Pharmacopoeia Japonica II.*; but there are many tinctures and powders made by private individuals, and sold without the Government guarantee, which have been found to be adulterated. Some prominent chemists are raising an outcry against the impurity of these native medicines, and it is hoped that someone will come forward and venture to manufacture pure native drugs, as the sophistication, according to our Yokohama correspondent, is becoming a public scandal.

Legal Reports.

Claims against Chemical-manufacturers.

MESSRS. BURNARD & ALGER, chemical-manufacturers, Catte-down, were the defendants in an action heard at Plymouth County Court on September 14, in which Captain Thomas Jones and the co-owners of a Portmadoe vessel claimed 3l. 5s. 1d., balance of freight; 1l 0s. 8d., being 1d. per ton wrongly deducted as half-cost of weighing cargo; and 1l 0s. 8d., being 1d. per ton charged as landing-dues and paid under protest. The first two items had been paid into court, and, although the third was a small amount, the principle involved was important. Vessels at Messrs. Burnard & Alger's wharves had the use of a crane for 4d per ton, and 1d. per ton for discharging. For the plaintiffs it was contended that the 4d per ton covered the entire discharging of cargo. Captain Jones said the arrangement he made with the manager of defendants' wharf-department was 4d. per ton to get the cargo on to the quay. The custom of paying 1d. per ton for a landing-man was peculiar to Plymouth. Ultimately Judge Woodfall gave judgment for defendants, with costs, and refused to allow an appeal.

AT the Tunstall County Court on September 15 the Chester-ton Chemical Company was sued by Messrs. Ketty & Co., waggon-builders, Birmingham, for 50l. 18s. 7d. for waggon hire and maintenance, and work and labour done by the plaintiffs for the defendants. After hearing the technical details on both sides, the Deputy-Judge gave plaintiffs judgment for the 8l. 15s., one of the items, in addition to a sum paid into court.

Sale of Food and Drugs Act.

MAGNESIA.

AT Wootton Bassett on September 9, John Yonth, grocer, and Frank Kempster, grocer, were each fined 5s. and 7s. costs for selling carbonate of magnesia as magnesia.

CAMPHORATED OIL.

ALEXANDER MORGAN, a shopkeeper, was, at the Brierley Hill Petty Sessions on September 15, fined 20s. and 20s. costs for selling camphorated oil deficient in camphor to the extent of 23 per cent.

SEIDLITZ POWDERS.

AT Market Harborough Petty Sessions on September 12, Elizabeth Fox, grocer, was fined 3l., including costs, for selling seidlitz powders which were not B.P. She pleaded that she bought the powders from a well-known London firm of high standing at full market price, but that firm got them from another firm, so the wholesaler was out of it this time.

A QUESTION OF ALCOHOL-TABLES.

AT Chichester County Court on September 9, William James Hower, landlord of the Claremont Inn, Bognor, was charged with selling brandy not of the nature, quality, and substance demanded. The case had been adjourned in order that the defence might produce analytical evidence, and Mr. Archibald Wilson, chemist, in the employ of Messrs. Headlands (Limited), of Brighton, and formerly a student under Dr. Muter, produced an analysis which showed that the sample of brandy was only 23 under proof, and that there had therefore been no infringement of the Act. Witness had a table put before him to work his figures out by, but it was found that they did not agree, and the witness explained that he had arrived at his results by an entirely different table—viz., one of which Dr. Muter was the author. Mr. Otto Hehner, county analyst, stated that he and two assistants analysed the brandy. The analyses, though differing slightly, corresponded as accurately as could be expected, and showed that the sample was 30 under proof

and contained an excess of 4 6 of water. In cross-examination witness said he had seen the certificate on the other side, and considered that the figures therein did not agree with each other. He did not consider the table of Dr. Muter was suitable for an analysis of this kind. After a short consultation the Bench saw no cause to dispute the analysis of the county analyst, and fined the defendant 20s. and the costs.

Spirits Act.

DILUTING FINISH WITH METHYLATED SPIRIT.

AT the West Ham Police Court on September 20, before Mr. Baggallay, Henry Acton, oil and colour man, carrying on business at Plaistow, was summoned by the Inland Revenue authorities for altering methylated finish by adding methylated spirit.

Mr. B. Hawkins, who appeared for the prosecution, stated that on July 10 a Revenue officer called at defendant's branch business at Plaistow and asked for methylated spirit. He was told they had not any methylated spirit, but methylated finish, and this was supplied. On being tested this was found to contain only 2½ oz. of gum resin to the gallon. The defendant admitted that his manager had bought some stuff and added methylated spirit to it. Mr. Hawkins remarked that by this means the defendant avoided the licence for methylated spirit and the regulations under which it was kept in stock.

The defendant said he left this part of the business to the manager, who had added the spirit because complaints had been received that it would not burn.

Mr. Baggallay: You are responsible for your manager. It was intended to burn? The Defendant: Yes.

A fine of 40l. and 7s. costs was imposed.

Bankruptcy Report.

Re THOMAS ALFRED WILSON MAGUIRE, late of West Ham Lane, Druggist.

UNDER a receiving-order made in this case the first meeting of creditors was held last week at the London Bankruptcy Court. At the commencement of 1895 debtor purchased the drug-stores at 39 Devons Road from his father for the sum of 200l., payable by instalments of 30s. per week. Six months later he took a partner, who introduced about 300l. capital, and this was partly used in paying off the balance of the purchase-money. A deed of partnership was executed, under which they agreed to take equal shares of the profits, the trading style being "The Maguire Drug-stores." At the expiration of three months the debtor retired, receiving 20l., certain furniture being handed over. In 1899 he started an artificial-teeth maker's business at 65 Bow Road, and was carrying on the same at the date of the receiving-order. In September, 1898, he opened a draper's business, under the style of "A. Wilson," at Ponders End, into which he put 100l., his own money. In March, 1893, having got into difficulties, he executed a deed of assignment in favour of a trustee on behalf of the creditors. In March or April last he purchased the business of drug-stores carried on by his father (Mr. A. W. Maguire) at West Ham Lane, for which he agreed to pay 350l. by small instalments. He put no capital into the business at the time, and left it to a manager. He traded there as "Maguire Drug-stores" until June 22, when he found he could not go on any longer as his liabilities were increasing. He then agreed to hand over the business to his father on the latter withdrawing his claim (about 340l.) in respect of the balance of the purchase-money. The liabilities in connection with that concern were about 40l., and the assets at the time he transferred it to his father comprised stock 120l., and fixtures 75l. He ascribed his failure to want of capital, to liabilities in respect of the draper's business, to interest on borrowed money, and to heavy expenses incurred in advertising the business at Bow Road. The accounts show liabilities 570l. 10s. 8d., and assets 13l.

No proposal was submitted, and the case was left in the hands of the Official Receiver, as trustee in bankruptcy.

The following are creditors:—

		£ s. d.
Baiss Brothers	...	15 0 0
Butler & Crispe	...	20 0 0
Edwards (Limited)	...	10 0 0
Idris & Co.	...	10 0 0
Maguire, A. W.	...	250 0 0
Morris, A.	...	12 0 0
Newton, A.	...	143 0 0
Wedekind & Co.	...	36 0 0

Deeds of Arrangement.

Nunn, Philip William Gowlett, "Gestingthorpe," Christchurch Road, Boscombe, Bournemouth, physician, medical officer of health, and hospital medical superintendent. Trustees, Richard Hodges, 270 Old Christchurch Road, Bournemouth, butcher, and another. Dated, September 11; filed, September 18. Secured creditors, 1,456*l.* 7*s.* 6*d.*; liabilities unsecured, 1,006*l.* 8*s.* 3*d.*; estimated net assets, 617*l.* 10*s.* Deed of arrangement with a view to the gradual payment of debts in full, debtor paying to trustees out of his official salaries the sum of 15*l.* monthly, commencing October 2, 1899, secured by an assignment upon trust, &c. The creditors are chiefly local, and unconnected with the drug-trade.

Ritson, Robert R., Castle Lane, Belfast, formerly residing at 129 High Street, Bolton (Lancs), chemist. The following are scheduled as creditors:—

	£ s. d.
Ayton & Saunders, Liverpool	14 5 9
Gibbs, D. W., London	5 17 9
Hargrave & Southurst, Manchester	7 14 3
Harker, Stagg & Morgan, London	38 0 1
Kirker, Greer & Co., Belfast	5 14 6
Ritson, Thomas Y., Bolton	44 11 3
Bankers' claims	3.7 12 1

Gazette.

PARTNERSHIPS DISSOLVED.

Gibbs, J., and Gibbs, S., under the style of Gibbs & Son, Eastbourne, chemists and druggists.

Oldendorff, E. H., and Oldendorff, H. G. W., under the style of E. H. Oldendorff, Mark Lane, E.C., colonial merchants.

THE BANKRUPTCY ACTS, 1883 AND 1890.

ADJUDICATIONS.

Aves, Ernest Harold, East Kirkby, Nottinghamshire, chemist and druggist.

Leigh, Peter, and Hutchinson, Sarah (trading as Leigh & Co.), Sale and Sale Moor, Cheshire, grocers, provision dealers, wine and spirit merchants, Italian warehousemen, and patent-medicine vendors.

ADJUDICATION ANNULLED.

Mitchell, Noah, Regent Street, W., electrical-belt maker.

New Companies & Company News.

KARL MILLER ORE REDUCTION SYNDICATE (LIMITED).—Capital 25,000*l.*, in 1*l.* shares. Objects: To acquire and work K. Miller's patents for treating ores by chemical means.

JAMAICA PRODUCE AND TRANSPORT ASSOCIATION (LIMITED).—Capital 320,000*l.*, divided into 300,000 ordinary shares and 20,000 deferred shares of 1*l.* each. Objects: To carry on business as produce and fruit merchants, importers, and exporters in the United Kingdom, Jamaica, and elsewhere. Among the products to be dealt in are ginger, arrowroot, tam winds, &c.

FLETCHER, FLETCHER & CO. (LIMITED).—Limited by guarantee, with 20 members, each liable for 1*l.* Objects: To carry on the business of wholesale and retail chemists,

druggists, drysalters, druggists' sundriesmen, &c. The subscribers are:—F. W. Fletcher, manufacturing chemist; T. Bascombe, manufacturing chemist; E. R. Taylor, clerk; C. E. Wells, clerk; E. H. Lee, clerk; G. E. Cecil, clerk; and H. W. Alder, analyst; all of 469 Holloway Road, N. F. W. Fletcher is the governing director.

THE AMIRAL SOAP COMPANY (LIMITED).—The secretary of this company informs us that the paragraph which appeared in this section last week did not refer to his company, but to the syndicate which was originally formed to introduce the Amiral soaps, and whose rights and business the company acquired. We regret that last week's paragraph should have caused the company any inconvenience.

MAYPOLE COMPANY (LIMITED).—Meeting of (1) the debenture holders, (2) the creditors of the said company, for the purpose of considering and, if thought fit, approving the scheme of arrangement, will be held on September 28, at the Holborn Restaurant, at 2.30 P.M. for the debenture holders, and at 3.30 for the creditors. Mr. Justice Wright, has appointed Mr. George Browning, the liquidator, or (failing him) Mr. W. C. Jackson, chartered accountant to act as chairman of the said meetings.

THE BRITISH DYEWOOD AND CHEMICAL COMPANY (LIMITED). shows a profit for the first eighteen months ended June 30, of 44,081*l.* 13*s.* 2*d.* After providing for interest on purchase money and certain preliminary expenses, bad debts, and depreciation, there remains a balance of 24,130*l.* 3*s.* After providing dividend on the preference shares at 5 per cent, and putting 1,000*l.* to reserve, it is proposed to pay 2 per cent. per annum from May 20 to June 30 on the ordinary capital.

TRITICINE (LIMITED).—In the Vacation Court on September 21, Mr. Justice Darling had before him the case of Hick v. Triticine (Limited). The application for the release from custody of Mr. Charles Henry Goodall, who had been receiver and manager of the company, was renewed. Last week Mr. Justice Cozens-Hardy declined to discharge the attachment. His Lordship ordered that the writ should be executed, but said that as Mr. Goodall had not put any money into his own pocket but simply paid away wrongfully to persons not entitled to receive it, he (Mr. Justice Cozens-Hardy) suggested that his successor in the Vacation Court might reasonably exercise his discretion and release Mr. Goodall after a week's imprisonment. Mr. Goodall surrendered on September 15, and his week would expire on September 22, and he now applied that he might be released on that date. Not only had Mr. Goodall not put any money into his own pocket, but he had actually lost about 1,000*l.* in the business. Mr. Justice Darling directed that Mr. Goodall be released on Friday on condition that he paid 25*l.* towards the taxed costs of the applicants.

A CATASTROPHE.

IN the gloaming, O my darling,
When I wander o'er the tiles,
There is naught that thrills my heart so
As the perfume of your smiles.



That is not, I feel, my dearest,
Apt simile, but you know
Tinct. valer.'s antispasmodic,
And it's feline all the time.
So I hug with scandal twisting,
While Fred. Reynolds seeks the rhyme.

CACODYL.

The British Association.

THE Dover meeting of the British Association has been satisfactory from many points of view, and in none perhaps more notably than in the interchange of visits with the French Association, which is meeting simultaneously in Boulogne. The visit to Dover took place on Saturday, September 16, when about 300 ladies and gentlemen connected with the French Association arrived at Dover and were accorded a welcome at the Town Hall, and afterwards were entertained to luncheon, when the proceedings were of a highly jovial character and abounded in good feeling. Sir Michael Foster proved himself to be especially happy in his treatment of the foreign guests, and his attention to the different sections was also good. He was always present when a particularly noteworthy communication was made to any one of them.

THE CHEMICAL SECTION.

Many papers and reports have been read at the meetings which deserve the attention of pharmacists, but we cannot attempt to do more than give the gist of the most interesting. The chemical section first demands attention. Here Mr. HORACE T. BROWN, LL.D., F.R.S., presided. Mr. Brown

is a distinguished Fellow of the Chemical Society. He was for many years connected with the Burton brewing-industry, but latterly he has been in practice as a consultant, and his leisure has enabled him to devote much time to the study of those most intricate questions connected with fermentation and cell-development. It was on such a subject as this that he devoted his address to the Section on September 14. It is within the memory of most of us what scientific astonishment was caused when an attempt to overturn the time-



MR. HORACE BROWN.

honoured beliefs that no direct assimilation of atmospheric nitrogen was possible for plant-life was first made. But now no text-book can afford to omit full reference to the functions of bacilli in the root-tubercles of certain leguminous plants in bringing about this direct fixation. Although there has during recent years been an accumulation of evidence (perhaps more inferential than direct) that the commonly accepted source of the other important plant-element—carbon—viz., the carbonic-acid gas of the atmosphere—does not exclude the possibility of other sources being available, little attention has been paid to it by the average scientist. The choice of Dr. Brown as President of the Chemical Section this year foreshadowed an address in some way related to

CARBOHYDRATES.

Working in the Jodrell Laboratory, at Kew, with Mr. F. Escombe, he has attempted to attack the question as to the nutriment of plants with ready-formed organic compounds practically, and, although not yet in a position to give any decided answer to the main question involved, several important side-issues have been raised, and to these special attention has been paid. After discussing the subject historically, the President pointed out that De Saussure left open the possibility of such assimilation, by his work, and that so late as 1865 Sachs admitted its possibility.

A most important point with regard to the rate of assimilation of the atmospheric carbonic acid has been brought out by the experimental work referred to. It was shown that, within the limits of one-fourth to four times the amount normally contained in air, the rate of absorption is propor-

tional to the tension of the gas, and that, when a leaf is absorbing at the rate of 1 grammme of carbohydrate per square metre of surface per hour, the CO_2 is absorbed more than half as fast as the same surface would absorb the gas if wetted with a constantly-renewed film of a strong solution of caustic alkali.

The personality of the President naturally brought forward a number of papers on the same subject. His old colleague, Dr. G. H. Morris, read one on the combined action of diastase and yeast on starch-granules. The important point brought out by this paper is the fact that the so-called stable dextrin, which is neither broken down by diastase nor fermented by yeast, is entirely fermented in the presence of both these bodies. This action appears to be a case of symbiosis (a subject fully dealt with later), except that we have conjunction of a living organism with an unorganized enzyme. Dr. Fernbach read a short note on the influence of acids and some salts on the saccharification of starch by diastase. The result of his experiments showed that the slightest trace of free acid distinctly retards the action of diastase on gelatinised, as well as on soluble, starch. The action, however, is only apparent if both the starch employed and the diastase solution are absolutely free from salts on which the added acid may act.

Sir William Crookes, on behalf of Professor Dewar, communicated a paper on

THE SOLIDIFICATION OF HYDROGEN AND HELIUM.

This was practically the same as the note which Professor Moissan communicated to the Academy of Sciences (*C. & D.*, September 9, page 455). The solid hydrogen presents the appearance of frozen water, and not, as has been anticipated by many, that of frozen mercury; hence it is now definitely decided that it is not metallic. The temperature of the solid is 16° absolute at 35 millimetres pressure, and it melts at 16° or 17° absolute, the practical limit of temperature obtainable by its evaporation being 14° or 15° absolute. The density of the solid is 0.086, and of the liquid at the melting-point 0.07. The hydrogen for the experiments was obtained by the action of pure sulphuric acid on pure zinc. Dr. Ludwig Mond, in proposing a vote of thanks, said it was gratifying to learn not only that Professor Dewar had achieved this great result, but that he was still alive to tell the tale, for the danger incident to the experiments was considerable. Dr. Gladstone seconded, and remarked that hydrogen was the last of the old gases that remained to be solidified; whereupon Sir William Crookes announced that Professor Dewar had succeeded in liquefying helium by means of liquid hydrogen, an announcement that was received with acclamation.

In the Botanical Section Sir W. Threlton-Dyer, of Kew Gardens, told how he had immersed commercial samples of the seeds of barley, the vegetable-marrows, mustard, and the pea in liquid hydrogen for more than six hours. The lowest temperature to which they were subjected was -485° F. The seeds came out of the ordeal as fresh and bright as they were before, and all germinated after they were planted.

Professor Tilden introduced the subject of

ATOMIC WEIGHTS

by a letter from Professor F. W. Clarke, of Washington, advocating international agreement on this matter. Professor Tilden's own remarks best illustrate the position. He said :

It is usually forgotten that the values arrived at in all the best determinations of atomic weights are obtained under conditions which cannot be observed in daily laboratory practice, the weights, for example, being usually reduced to a vacuum standard. Hence the adoption of the numbers regarded as the most exact does not necessarily contribute to the exactness of ordinary analytical operations, however carefully performed. A little common sense is required in all such matters, but it should be the common sense of the chemical world, and not the diverse fancies of individuals, and uniformity of practice would tend greatly to the general convenience. The only chance of arriving at such uniformity is to submit the question to discussion, first, at such meetings as those of the British Association and the Chemical Society, and, subsequently, at an international gathering, such as it is proposed to hold in Paris next year.

Professor Clarke's proposals really amount to this. Firstly, it is necessary to decide for uniformity's sake whether one

standard of reference should be $O = 16$ or $H = 1$. Secondly, an exhaustive examination of published results is necessary, with a view to deciding on the best and most reliable. An annual revision of this may be necessary. To meet these requirements nothing less than an International Conference would carry sufficient weight, and a permanent committee ought to be appointed, which, if it could not order, might persuade and new methods and researches in this important branch of chemistry might be carried out by trained experts. Professor Clarke prefers co-operation in research in this direction rather than individual freedom, and says, "Institutions like the Reichsanstalt in Berlin, the International Bureau of Weights and Measures in Paris, and the Davy-Faraday Laboratory of the Royal Institution might well contribute to their determination." In regard to this Sir Henry Roscoe considered that there should be but little difficulty in establishing uniformity by means of a committee, but he saw great difficulties in having the redeterminations made. Professor Fittig, Sir William Crookes, Mr. Vernon Harcourt, Dr. Gladstone, Professor Lemoine, Professor Emerson Reynolds, Professor Noel Hartley, Mr. Hibbert, Professor Carey Foster, and Dr. Bayley also joined in the discussion, the speakers being unanimous in recognising the desirability of having these fundamental factors established on a definite and uniform basis and of taking combined action to effect that end.

This discussion was followed by a paper, in English, on "The Development of Chemistry in the last Fifteen Years," by Professor A. Ladenburg.

THE BOTANICAL SECTION

was presided over by Sir George King, F.R.S., formerly of the Indian Medical Service, and Curator of the Calcutta

Botanical Gardens. In his address, Sir George gave a sketch of the history of Indian botany, referring to the work of the Dutch in the seventeenth century, which resulted in the formation of the "Hortus Malabaricus," a work undertaken at the instance of Van Rheede, then Governor of Malabar. Later the Portuguese took the matter up, and the next great worker was Koenig, who arrived in India in 1778; then came

Robert Kyd, who founded the botanical garden at Calcutta in 1777, and was succeeded by Dr. William Roxburgh, one of the circle of botanical enthusiasts who, through the influence of Koenig, were known as "the United Brothers." Roxburgh was the first botanist to draw up a systematic account of the plants of India, and it is the basis of all subsequent works of Indian botany. Until Hooker's "Flora of British India" it remained the only single book through which a knowledge of Indian plants could be acquired. Dr. Hamilton was Roxburgh's successor in 1813, but he only remained in the position a few years, having been succeeded in 1815 by Wallich, a native of Copenhagen, who retired in the year 1846. William Griffith was the next great Indian botanist to whom Sir George King referred, and the work during the first half of this century closed with the name of Thomas Thomson. It was in 1843 that Sir Joseph Hooker went out to India with Lord Dalhousie and explored Sikkim in the Eastern Himalaya, as a result of which between six and seven thousand species were collected and determined, Thomas Thomson assisting Sir Joseph Hooker greatly in this work. In 1848 the Calcutta garden was under the charge of Dr. Falconer. Dr. Jamieson succeeded him in 1851. Dr. T. Anderson followed Dr. Jamieson in 1861, and Sir George King was appointed in 1871. The President also spoke of the work done by the Forest Depart-

ment under such officers as Dr. Lindsay Stewart, Sir D. Brandis, and Mr. Gamble, and the assistance by Birdwood, Bidie, Woodrow, Theodore Cooke, and many others was referred to. He then dealt with the garden and herbarium at Calcutta, that have been most liberally supported by the Bengal Government, which, twelve years ago, sanctioned the publication as occasion might offer of monographs of important families or genera of Indian plants. These monographs are printed in quarto, and are profusely illustrated by plates drawn and lithographed by Bengal draughtsmen. The series is known as "The Annals of the Royal Botanic Garden, Calcutta," and it has now reached its eighth volume the ninth being in active preparation.

Sir George King also referred to the importance of the maintenance of type-specimens of species of plants, and strongly urged upon the Government the necessity of providing at Kew, or elsewhere, a fireproof building capable of storing all the available floras of the British Empire. In regard to the introduction of cinchona into India, Sir George made the following remarks:—

The advisability of growing cinchona in the mountains of British India was pressed upon Government by Dr. Royle in 1835. Dr. Falconer made a similar suggestion in 1852, and Dr. T. Thomson and Dr. T. Anderson in turn advocated the proposal. In 1858 Government at last took action, and, as the result of the labours of Sir Clements Markham and Sir W. J. Hooker, of Kew, the medicinal cinchonas were finally, between 1861 and 1865, successfully introduced into British India—on the Nilgiris under Mr. McIvor, and on the Sikkim-Himalaya under Dr. T. Anderson. Various experiments on the best mode of utilising the alkaloids contained in red cinchona-hark resulted in the production, in 1870, by Mr. Broughton, quinologist on the Nilgiri plantation, of an amorphous preparation containing all the alkaloids of that hark. This preparation was named *amorphous quinine*. Somewhat later (1875) a similar preparation, under the name of *cinchona febrifuge*, was produced at the Sikkim plantation by Mr. C. H. Wood, the quinologist there, and of these drugs about 51 tons had been distributed from the Sikkim plantation up to the end of last year. The preparation of pure quinine from the yellow-cinchona harks, so successfully grown in the Sikkim plantation, long remained a serious problem. The manufacture of quinine had hitherto been practically a trade secret. Philanthropic platitudes were freely bandied about as to the immensity of the boon which cheap quinine would be to a fever-stricken population numbering so many millions, but there was a singular absence of any practical help in the shape of proposals, or even hints, as to how quinine was to be extracted from the rapidly-increasing stock of crown and yellow hark. The officers in charge of the cinchona-plantations in India had therefore to do their best to solve the problem for themselves. And it was ultimately solved by Mr. Wood, who suggested, and Mr. J. A. Gammie, deputy-superintendent of the plantation there, who carried into practice a method of extraction by the use, as solvents of the cinchona-alkaloids, of a mixture of fusel oil and petroleum. The details of this process were published in the *Calcutta Official Gazette* for the benefit of all whom it might concern. Very soon after the introduction of this method of manufacture, the Government factories in Sikkim and the Nilgiris were able to supply the whole of the Government hospitals and dispensaries in India with all the quinine required in them (some 5,000 or 6,000 lbs. annually), besides providing an almost equal quantity for the supply of Government officers for charitable purposes.

One of the most notable things in connection with Sir George King's address was the presence on the platform of the venerable Sir Joseph Hooker, who has so long laboured for the benefit of natural science in this country.

The Chemistry and Botany Sections of the Association met together on September 15, when several French scientists were present. They had a discussion on

SYMBIOSIS.

That is the word for co-operation in Nature—the virtue which tells a genus or species to work together, each for its own purpose, but for the performance of a definite piece of work. As Professor Marshall Ward put it, the organisms pass the whole of their existence together, as is the case with the alga and fungus constituting the dual organism of lichens. But that is the ideal condition, as rare in the lower orders of plants and animals as it is in man's social economy.

Dr. Calmette, of Lille, gave a practical turn to the discussion. He is looking after the plague at Oporto, and, in his absence, Sir H. Roscoe gave the gist of the paper in English (it was communicated in French). It was specially



SIR GEORGE KING.

interesting as presenting the industrial aspects of symbiotic fermentation. The fungi which are concerned in this are those which ferment carbohydrates, such as cellulose, starch, dextrins, sugars, tauvius, or nitrogenous substances such as casein. Dr. Calmette said:—

The fungi act by means of the diastases which they secrete, and which have properties very similar to those which the higher plants or animals possess for the assimilation of their foods. A very remarkable thing is that many of these beings have the faculty of producing the most diverse diastases, according to the nature of the food available to them. Thus the *Penicillium glaucum* is capable of secreting sometimes amylase, sometimes sucrase, or sometimes rennet and casease, according to the food it gets.

In many cases the growth of these inferior plants and the secretion of their diastases stop in nutritious elements where they have lived a certain time; then, even though these elements are far from being exhausted, the products of the change of the organic substance to which they gave birth become poisonous to them. For example, it is known that the saccharomyces cease fermenting sugar when they find themselves in the presence of a certain proportion of alcohol.

When these organisms are developed spontaneously—*e.g.*, on a piece of potato—it often happens that other beings, bacteria or moulds, whose functions are different, are not long in settling down beside them and taking part in the work of molecular degradation commenced by the first occupant. We can see, for example, the *Sclerotinia libertiana* establish itself at first and attack (thanks to the cytase and oxalic acid which it secretes) the slightest covering which surrounds the starch-grains. Soon the latter, when they thus become naked, are an easy prey for the numerous *Mucedinices saccharifantes*, mucor or aspergillus, and in proportion as the amylase of these last transform the starch into sugar, the latter immediately finds other beings which seize on it, either to consume it or make alcohol or carbonic acid out of it. The alcohol itself is not long in meeting cell-boxes of mycoderms, whose work is to oxidise it, to make it into acetic acid, or simply into carbonic acid and water. And by that series of successive degradations produced by inferior fungi the original fragment of potato will have completely disappeared.

Dr. Calmette further pointed out that from time immemorial moulds have been used in the East to manufacture alcohol from rice. The Japanese make their *saké* with an aspergillus, described in 1879 by Ahlborg as *Eurotium orizoe*; the Chinese and Javanese prepare their brandies and wines from rice by means of a mucor, whose very energetic saccharificative properties were proved by the author at Saigon in 1892 and Java in 1894. The fermentative properties of the moulds are much less developed than their saccharifying properties, and they seem to prefer to work along with alcohol yeasts. If one is careful to train them and so use them in pure cultivation, and only to use them along with pure cultivations of yeast, he considered that by this means the direct fermentation of starch, grain, or potatoes could be brought about, thus doing away with the malting process.

Sir Henry Roscoe added, on his own behalf, that by the employment of pure cultivations of the two forms of organisms thousands of tons of starch are transformed into alcohol in France and Belgium. This state of things may revolutionise the industry of fermentation and distillation, inasmuch as under efficient scientific supervision the yield of spirit by the new process amounts to 97½ per cent. of the theoretical yield. Moreover, the spirit is superior in quality to that produced in the ordinary way.

Professor Armstrong advanced arguments in favour of the purely chemical character of symbiosis, and advocated in particular Baeyer's view that fermentative changes are due to the withdrawal of water and the subsequent addition of its elements in a different order, the function of enzymes being to bring the water to this particular condition of activity; but the botanists (amongst them Professor Reynolds Green and Mr. Francis Darwin) insisted that the physiological character of symbiosis could not be disregarded.

THE IMPERIAL INSTITUTE

has a poor time of it at the hands of those who think they can do more with it than the present authorities. One of those who have their eyes on the splendid pile is Mr. C. H. Read, of the Anthropological Section of the British Museum. He suggested to his particular section of the Association that the Institute should be converted into a museum of anthropology. The removal of the ethnographical and anthropological collections from the British Museum to the galleries of the Imperial Institute would provide ample accommodation for the anthropological museum, as well as for the commercial side; and the University of London has

but to found a chair of anthropology and the whole of the necessary concitions of success would be fulfilled.

ATTENUATED FRACTIONS.

It is quite as difficult to conceive the "infinitely small" as the infinitely great. Two good examples were given of it during the meeting. In the course of his public lecture on nervous vibration, Professor Charles Richet stated that nerve-impulse travels along the nerve-filament at the rate of only 30 metres per second, just $\frac{1}{700,000,000}$ th of the rate of speed of light in space. One can almost better imagine the fact put this way—light travels 700,000,000 times quicker than a nerve-impulse. A wave of nerve motion lasts the tenth of a second, and the wave is $\frac{1}{300}$ metre long. A nerve once stimulated never returns to its original condition, and, though the difference is physically infinitesimal, psychologically it is enormous; for it is this permanent disturbance which constitutes memory. The period of the undulation is most important; our ideas, our impulses, cannot be repeated more frequently than ten or twelve times a second at the outside. If we try to think of a set of words in succession we can never pass this speed. If the rapidity of nerve-waves were greater, first sound, then electricity and light, would be perceived as independent undulations; if slower, we should see the motion of the hour-hand of a watch and the growth of a tree.

The other infinitesimal was brought out by Mr. E. H. Griffiths, F.R.S., in the course of a discussion on electrolysis and electro-chemistry. In speaking about his experiments on freezing-points of solutions, he said his apparatus was so delicate that he could measure easily a difference of temperature of five-millionths of a degree Centigrade.

A SPECIAL EXHIBITION OF WIRELESS TELEGRAPHY was given by Dr. Fleming, of University College, London, at Dover Town Hall, on September 15. A number of messages were sent between Dover and Boulogne, and also exchanged with the Goodwin Lightship and the South Foreland. A record was made by a wireless telegram received by Professor Fleming while at the Hotel Burlington. The message was delivered to him by telephone within three minutes of the time it was despatched from Boulogne.

FINAL ARRANGEMENTS.

The meeting of the Association closed on September 21. On September 15 it was decided that the meeting in Bradford next year should open on September 5. Sir Wm. Turner was chosen as President-elect, and amongst the Vice-Presidents is Professor Thorpe. The joint Secretaries are Sir W. C. Roberts-Austen and Professor Scheffer.

Business Changes.

Notices of changes in the retail trade, and opening of new businesses, are inserted in this section free of charge, if properly authenticated.

M. CHARLES NAEF, of Messrs. Meyer & Weiller, drug and oil exporters, Leghorn, has received the general procuracy of the firm.

MR. T. B. BAMPFORD has opened a new pharmacy in Station Street, Port Talbot. The fittings have been supplied by Messrs. Ayton & Saunder, of Liverpool.

MR. THOMAS ARTHUR COLTMAN, chemist and druggist, late of Scarborough, has taken over the business lately carried on by Mr. H. R. Blott at 21 Market Street, Lichfield.

MR. W. E. SMITH, pharmaceutical chemist, is the pioneer of electric lighting in Strood, near Roche ter. Last week an electric installation was completed in his pharmacy in High Street.

MR. A. J. SMITH, chemist and druggist, 47 North Street, Taunton, announces that he has purchased the stock-in-trade and the books, prescriptions, and recipes of the pharmacy lately carried on in that town by Mr. F. Wellington. The books of the pharmacy date back to the year 1809.

Pharmaceutical Prospects.

Some further opinions in regard to the necessity of technically qualified chemists and druggists getting business training before commencing business.

ALTHOUGH in general accord with the opinions as to the opening of new businesses expressed in the interviews reported upon last week, Mr. Hawkins (Orridge & Co.) held several views distinctly his own. His scheme for the business education of the young pharmacist differs in that he thinks a young man, after passing his Minor, should endeavour to obtain a situation in a business doing a mixed wholesale and retail trade.

"In a situation of that sort," said Mr. Hawkins, "the wholesale training of the first year or two is of incalculable benefit to a young man, as it teaches him as a necessary part of his work the business habits which are so essential in retail pharmacy. After this preliminary assistantcy, if he is desirous of going into the higher branches, he ought to endeavour to get a situation in France, as a knowledge of French pharmacy is almost a *sine qua non* for the pharmacist who intends doing a good-class business in London, Brighton, or any of the first-class southern towns. After a year or two of such training a young man of ordinary abilities, provided he has the necessary capital and has obtained the proper qualification, is fitted to go into business."

"Do you advise assistants to pass the Major examination?" our representative inquired.

"The Major qualification," said Mr. Hawkins, "is of absolutely no value to a pharmacist from a business point of view. In many cases, in fact, it is a drawback, for while it suits the pharmacist for the higher walks in chemistry and pharmacy, in the majority of cases it tends to put him a peg above the every-day pharmacist and the necessary work which his business entails. The Minor examination is quite sufficient; it gives the pharmacist more than the necessary technical education, and he has not the same chance of obtaining those high-flown ideas which prevent him continuing to look upon himself as an ordinary business man. The Major man in many cases looks upon his trade as a profession in which it is *infra dig.* to sell over the counter, to dust bottles, to dress a window, or any work of that sort."

BUSINESS BOOKS.

"The question of how a young man who has not been taught bookkeeping and business habits during his apprenticeship or subsequent assistantcy is to acquire such habits," resumed Mr. Hawkins, in answer to a query, "is difficult to answer. Several books have been written on the subject: the most suitable one for pharmacists which I know is 'How Do I Stand?' published by Mawson, Swan & Weddell, of Newcastle. The book goes, perhaps, deeper into scientific bookkeeping than is altogether necessary for the ordinary pharmacist, but any man with ordinary intelligence can obtain from that book an exact idea of how business should be carried on, and the necessary books to keep by him in order to know accurately the state of his affairs. The only books absolutely required by a chemist are a day-book and a ledger, and I would recommend a supplementary summary in the shape of a book showing what accounts have been paid in during the day or during the month—in reality, a concise summary of the day-book."

VALUING A BUSINESS.

"What points would you give the young man to enable him to judge the value of a business?"

"First of all, he ought to make investigations on his own account, and find out whether the climatic conditions would suit him; whether the house is suitable for himself and his family; whether the class of business is according to his ideas; and then he should compare the stock and fixtures as he sees them with the price which is asked, and see if they adequately come up to the valuation as far as he can judge. If he is not able to judge," added Mr. Hawkins parenthetically, "his best course is to come at once to Orridge & Co. However, having judged those things to the best of his ability, he should then examine the vendor's books and find out whether his statements as to takings, profits, and business done are correct or not; and the best and surest way in which to do this is to find out what the man buys. This

can be easily done by looking over the invoices and vouchers which have been given for goods for two or three years before. If the vouchers show that a man has bought a certain quantity of patent medicines or drugs during that time and paid for them, a certain amount of business has been done. The invoices and vouchers having been inspected, the only other thing to be done is for the purchaser to get references from the vendor to his wholesale house. These are really the principal points to be kept in mind in the purchase of a business, but they are generally neglected."

"In what way?" was asked.

"Well, the prospective purchaser invariably begins at the wrong end. He goes first of all to the vendor, and says: 'I want to purchase your business; will you let me see through your books?' Now, that is the last thing which ought to be talked about, for a vendor's statements should in every instance be taken for truth, and the purchaser ought to verify the statements on his own account. Again, many purchasers are much perturbed about why a vendor is selling. Now, nothing is to be gained by going into that point. The man may have very good and very genuine reasons for selling; and, if the concern is bogus (which, by the way, it seldom is in pharmacy), depend upon it, the seller would have all his cash-books and his reasons cut and dried."

PHARMACEUTICAL PROFITS.

"Profits are not so good now as formerly, Mr. Hawkins?"

"Perhaps not; but businesses are not sold in the same way as they were thirty or forty years ago. At that time businesses were invariably bought for a lump sum; nowadays that is seldom done. Thirty or forty years ago the proportion of the gross profits, ranging from 40 or 50 or more per cent., was nearly equal in all businesses, and the buying of the stock mattered very little in the purchase. Nowadays, instead of 40 or 50 per cent., the gross profits are perhaps 25 to 30, and the stock and fixtures become a considerable item in the purchase. Therefore the process of buying now is generally by valuation—certainly the fairest and most equitable manner of purchase. Out of every hundred businesses nowadays sold two-thirds are by valuation of stock and fixtures, and only one-third by lump sum."

PARTNERSHIPS.

"With regard to the question of partnerships, there are not many in the retail trade. The turnover is so small that partnerships are not a desideratum; and I am not a believer in partnerships as a rule, but I particularly disbelieve in the 'partnership with a view to purchase' idea; that in almost every case I consider to be a mere subterfuge. The advertiser gets an assistant to come who thinks that he will be in a very short time a partner in a good business. The assistant works well, and does everything he can for the good of the business in the hope that one day it will be his, and the principal keeps him on tenter-hooks for a considerable time, always giving him the idea that he is not prepared to settle him in business, but will do so in good time. The day of settlement never seems to come, and the young man at last discovering that the view to partnership is very remote, throws up his situation in despair, and another man in the same mind comes to fill his place. I am far from saying that these remarks apply to all cases in the drug-trade, because there are certain circumstances where they distinctly do not, such as a man advanced in years and jealous for the reputation of his business even after he has retired; but I think in the majority of cases the facts will prove to be as I have quoted."

"What is your view of the store question, Mr. Hawkins?"

"I think that we have touched bottom as far as harm by the stores is concerned. They have done their utmost, and the name of 'Stores' has now been adopted so generally that the public see through the thing and take no notice of it. But I consider that the centralisation of business which the store-system has instituted has done, and is doing, great harm to the drug-trade."

It was not the intention of this inquiry to seek a solution of this last-mentioned trouble, but simply to elucidate from men whose lives are spent in dealing with pharmacies as businesses how those who practise pharmacy may make the most of it; and, clearly, there is an element in our pharmaceutical education wanting—to wit, commercial instruction.

Observations and Reflections.

By XRAYSER.

SIR MICHAEL FOSTER, like so many of his predecessors in the chair of the British Association, attributes to outside Philistines the mercenary view of science "as if she were useful and nothing more, as if her work were only to administer to the material wants of man." I do not know that any one does take that view; I think there are theorems of mathematicians and speculations of astronomers which are intensely interesting, but which are never likely to be of the smallest use to any earthly being. But what strikes one in Sir M. Foster's refutation of what he says is our attitude is that it is a purely materialistic view itself. The triumphs of science, he asserts, are intellectual triumphs which give man an increasing mastery over Nature, and enable him to better use the forces of what he calls inanimate nature. If the only purpose of improving our minds is that of manufacturing better machinery, our objects, it seems to me, are simply and directly material. What Sir Michael Foster has to prove is that the truths of science give the same gratification to a cultured mind as the beauties of poetry or painting provide; but if he made this attempt he would find himself confronted with the awkward fact that the falsities of science are as gratifying as the truths. For instance, for over a century the phlogiston theory satisfied thousands of curious intellects, just as well as any other plausible guess satisfies us so long as we cannot discover a flaw in it.

THE COMMERCIAL SPIRIT strives hard with professional sentiment in the case of a correspondent of the *British Medical Journal*, signing himself "Common Sense," who "cannot understand the suicidal objection evinced by the younger generation of medical men to dispensing." "Double the income with half the work" he has found to be the result of dispensing. How doing his own dispensing can reduce his work is not easy to understand, nor is it explained. His lady dispenser, it appears, acts also as governess. Does he get her on reduced terms because she does dual duties? "Common Sense" avers that he never found dispensing affect one's social position, but he adds, naïvely, "I certainly do think it is *infra dig.* to be seen mixing medicines." This is very like the lady in reduced circumstances who took to crying oranges in the street, but hoped no one would hear her.

A CHEMICAL INVESTMENT.—The position of Brunner, Mond & Co.'s shares is the subject of an interesting review in the *Statist* of last Saturday. The profits of this company had a bad set-back by the McKinley tariff, which came into operation on August 1, 1897. The company made a profit of 339,258*l.* in the year ending June 30, 1896. The financial year was then changed, and for the nine months to March, 1897, the profits were declared at 231,510*l.* or at the rate of about 310,000*l.* for the full twelve months. The next year, ending March 31, 1898, a profit of 286,223*l.* was shown, and the last reported year's trading yielded a profit of 366,423*l.* The ordinary share capital of the company amounts to a little short of a million, and the 7-per-cent. preference stock to 712,980*l.* A large reserve fund of 586,000*l.* and 110,025*l.* is in hand, and the *Statist* calls attention to the fact that while the 10*l.* fully-paid preference shares at the present market-price of 18*1*² show a yield of 3*l.* 16*s.* 11*d.* per annum, the 7-per-cent. preference shares, on which only 5*l.* has been paid, and which are now quoted at 8*l.*, offer the really good dividend of 4*l.* 8*s.* 4*d.* per cent. So

long as the ordinary shares get anything like their present dividend, the calling-up of the balance on the partly-paid preference shares would be heartily welcomed by the holders, and would improve their price.

THE COMMON SERJEANT found George Hammond an enigma. Here was a man who had been in prison for the greater part of the last dozen years for various forgeries starting the same game again almost as soon as he was free for the most trumpery gains. He went straight to his inevitable doom, and scarcely took any precautions to avoid it, for a few dozens of eau de Cologne and three or four ounces of quinine. Perhaps he had not had time to learn that quinine was not the booty it used to be when he operated previously. But one would think he could hardly have helped realising in some degree the legal view of forgery. He might not have agreed with it, but the least bit of shrewdness would have taught him easier ways of getting eau de Cologne than by signing other men's names to his orders. Sir Forrest Fulton dismissed the inconvenient problem summarily by sending George Hammond to prison for another eighteen months; but the problem remains.

THE WHOLESALE DRUGGISTS are not to blame exactly. Those of them who supplied goods to this forger after the exposure of his method in the *C. & D.* cannot be acquitted of some negligence, but for the rest it must be remembered that genuine orders and genuine rubber stamps are sometimes not very finished productions. The "scrappiness" of them, indeed, is a sort of evidence of good faith. Still there is the fact that drugs and proprietary articles are delivered from the town departments of wholesale houses with a good deal of freedom, and this ought to have been considered as an extenuating circumstance for poor George. There is a distinction between the thief who is made by the opportunity and the thief who makes the opportunity for himself.

JOINT-STOCK DRUGGISTS.—I notice that Messrs. Fletcher, Fletcher & Co., manufacturing chemists, have registered their firm as a limited-liability company, "to enable the principal members of their staff to participate in the advantages accruing from the expansion of their business." It is pretty certain that such registration will be general—almost universal—in the future. It is the best method yet discovered of harmonising the relations of labour and capital, and labour will insist upon some such arrangement if capital does not provide it. This consideration shows how important it is that company-law should be revised in the light of past experience, so as to enable business to run smoothly and fairly towards both shareholders and creditors. I observe that the President of the Pharmaceutical Society of Ireland suggests that the adoption of the limited-liability principle should be facilitated by allowing even three partners to associate under it. This, I think, would hardly be an advantage. The Partnership Act of 1865 makes it possible already for an outsider to lend money on a business and to share in the profits without incurring a partnership liability. It would not be fair to the public to go further than this.

PROCTOR'S "MANUAL OF PHARMACEUTICAL TESTING."—Every pharmaceutical chemist should be capable of testing the drugs and chemicals he has to dispense, and this handbook gives him not only some useful hints on procedure in regard to manipulation, but also describes a number of tests, which are simpler or more expeditious than some of the B.P. methods. In many ways the book has been brought up to the requirements of the day and the revised B.P.—*Chemical Trade Journal* (published at the office of the *C. & D.*, price 2*s.* 6*d.*, by post 2*s.* 9*d.*).

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Editorial Comments.

Ships' Medicine-chests.

THIS week the Marine Department of the Board of Trade has issued new medical scales for merchant and passenger ships. It will be remembered that last December the Board appointed a Committee to revise the scales, and sought the assistance towards this end of the Royal College of Physicians (London) and the Pharmaceutical Society of Great Britain. The College appointed Drs. Nestor Tirard and Sydney Phillips, and the Society Mr. A. J. Phillips (a member of the Board of Examiners), to act with the Committee. The object aimed at was to bring the scales into harmony with the new British Pharmacopœia, and to modernise the selection of medicines, surgical appliances, and medical comforts which has so long done duty for our merchant marine. We note that the Committee has exercised a wise conservatism, comparatively few radical changes in the contents of the medicine-chests having been made. The following columns show what is new and no longer required for merchant ships, and our subscribers may turn for comparison to the old list printed in our 1898 DIARY, or to their copies of the “Medicine-chest Book”:

Added.

Bicarbonate of potash
Bromide of ammonium
Comp. tint. chloroform and morphine
Mustard-leaves
Boric-acid ointment
White precipitate ointment
Strong solution of iodine
Salicylate of soda
Witch hazel (liq. ext)
Colocynth-pills

Removed.

*Carbonate of potash
Bromide of potassium
Cream of tartar
*Chlorodyne
*Mustard
Basilicon-ointment
*Tincture of iodine
Diarrhoea-powder
Salicin
Spirit of hartshorn
Powder of jalap
Colocynth and henbane pills

The articles marked with an asterisk in the above list are from the portion formerly ranked as optional. All the rest in that class are now made obligatory, and the new equivalents are also obligatory.

So far as the physic is concerned it will be seen that the changes are not at all revolutionary. The quantities are in

many cases increased—*e.g.*, black draught, castor oil, essences of peppermint and ginger, laudanum, iodoform, blue and purging pills, and turpentine liniment are to be given to the extent of 50 to 100 per cent. more than formerly; but in the case of sulphur only half the old quantities are required.

All the preparations are to be B.P., 1898, except the essences, which are retained of 1885 standard. For the first time, all bottles are directed to be stoppered, and the labels should bear the official adult doses, while the poisonous articles are to be marked with a red poison-label. In regard to the last-mentioned, it is directed that poisons should be used with caution, and, if given internally, should be carefully measured. These precautions should be stated on the bottles, but this is not an order by the Board. Referring to bottles, we ought to note that ipecacuanha-powder is to be supplied in tins, apparently for the purpose of preservation; and, for the same reason, linseed-meal is to have 2 dr. of powdered camphor added to each pound. The scale does not specify what "linseed-meal" is: it has generally been the rule to give ground linseed-cake, and since "linseed-meal" is no longer the official name for crushed linseed it may be assumed that the cheaper and less oleaceous article is intended; but, on turning to the "Passenger-ship Scale," we find "linum contnsnm" specified, and, as this also requires the camphor, it is doubtless intended for merchant-ships. It would have been better if the scale should have said so. In the case of "quinine," too, the scale should specify in the druggists' column that quinine sulphate is intended.

There are notable changes in the pills: the non-gripping pil. coloc. c. hyos. is displaced for the more powerful pil. coloc. co., the action of which sailors will, doubtless, better appreciate. All pills are to be 4 gr., except pil. sapon. co., which are to be 2 gr. only, and all must be gelatin-coated. Many ship-captains will not thank the Board of Trade for removing basilicon ointment—a great favourite and effective protective. The introduction of ext. hamamelidis liq. for witch-hazel is inexplicable. It is not popular, is rarely used by physicians even, and is certainly not so suitable as the distilled witch-hazel. It will be observed that by the removal of diarrhoea-powder there is no longer in the medicine-chest any astringent remedy: perhaps "witch-hazel" is to do duty in that respect, but sailors usually need purgatives more than astringents. Black-draught is now to be B.P.

The medical stores and necessaries list is considerably altered. The following are additions to it:—

Rubber plaster

Boric lint

Absorbent cotton wool

Double cyanide gauze

Pasteur filter, 2 gals.

Abscess-knife, Paget's

Eye-spud

Needles in vaseline

"Tablet of silk, with four sizes"

Higginson's enema-syringe

Soft olive-headed catheter

Double truss

1 doz. aseptic sponges in hermetically-sealed bottles

Plaster-of-Paris bandages

Clinical thermometer

Camel-hair pencils

A few of these items are pedantic, especially "sponges, septically prepared, in hermetically-sealed bottles containing one dozen." As the list does not say with what kind of septic matter they are to be prepared, we have assumed that aseptic sponges are meant; but perhaps we are wrong, for there does not seem to be much sense in hermetically sealing, in the first instance only, a vessel containing twelve sponges, which are likely to be used on twelve different occasions. It is curious, too, that the list contains nothing in the way of a protective for the antiseptic dressings once they are applied. The passenger-ships' list contains a yard of "oiled silk, or substitute, prepared by Messrs. Christy & Co."

The new scales will come into operation on December 1, 1899. The Superintendents of Mercantile Marine offices are directed to distribute the circulars containing the scale among all persons interested in the subject; chemists and druggists should therefore receive copies. But they should apply for them at once to the Superintendents, or direct to the Secretary of the Board of Trade (Marine Department), Whitehall, London, specifying "Medical Scale for Merchant Ships—Circular No. 696," or "Medical Scale for Passenger Ships—C.O. No. 9." The former is the circular generally required.

Since the foregoing was written we have received a third scale from Sir Courtenay Boyle, of the Board of Trade. This is for North Atlantic passenger-ships, and is numbered "C.O. No. 26." It covers the needs of passenger-ships whose voyage does not exceed thirty seven days.

Horse-blisters.

THOSE unacquainted with veterinary treatment are apt to suppose that the frequent prescription of a blister for so many and various equine ailments partakes somewhat of the old-fashioned bleeding, blistering, and purging which were so freely prescribed for man and beast alike in the early years of the century. Such is not the case, however. The fream and the blood-stick are as much out of fashion among horse-doctors as in the medical profession, but the blister is in daily requisition, and, so far as can be seen, likely to remain so, because, although it may appear to be crude, it is truly scientific treatment. Like many other valuable remedies, the blister—or, rather, its beneficial effects—were hit upon by accident, and employed in the most empirical manner for centuries before anatomy and physiology gave the explanation.

Professor Coleman, of the Royal Veterinary College, used to say that the veterinarian got more than half his living below the horse's knees—meaning, of course, that lameness was of more frequent occurrence than all other equine illnesses. Customers who ask for a blister, if they do not name some proprietary article, are apt to suppose that a horse-blister is the same for all purposes, and it is the chemist's business to enlighten them and supply the article most suited for the occasion, be it for the removal of a bony deposit, the strengthening of a weak tendon, the healing of a quitter, or to make the hair grow on a part that has been denuded by injury. The primary effects of a blister are too well known to need description here, and those effects vary in intensity according to their composition and the idiosyncrasy of the subject. The application of vesicating agents to horses, except for the diversion of inflammation from thoracic or abdominal organs, is not usually for its primary effect, but for the subsequent action upon the lymphatic absorbents. Nor are the agents chosen for both purposes the same. The simple vesicant which will prove valuable in a case of inflammatory disease of the chest or bowels will not answer the purpose of removing a splint or side bone or restoring a broken-down tendon.

For the former purpose mustard may be advised, or ammonia liniment, compound-camphor liniment, or other similar preparations, such as white oils, for which some excellent formulas will be found in "Veterinary Counter Practice." Among the more advanced veterinarians there is just now a disinclination for ammoniacal liniments, and an acid preparation may very well be substituted, as acetic acid with turpentine, &c., but cantharides preparations should not be added, as the cantharides is found to undergo absorption rather freely under certain circumstances, and causes disastrous effects on the kidneys. Oil or vinegar of

cantharides should not be prescribed in inflammation of the kidneys or where kidney-trouble is suspected.

For counter-irritation to the lungs, abdomen, or loins, plain mustard is generally preferred. Mustard oil, which would seem to be a suitable and more elegant preparation, is not found at all efficient when applied to horses. Plain mustard used cold, or nearly so, is best. It should be borne in mind that horses' skins are extremely susceptible to heat, and that the horny hand of a stableman is no guide as to what temperature a horse can bear. Many animals are unintentionally blistered by a simple linseed-meal poultice owing to its being applied too hot. The naked elbow of the attendant is a safer guide as to the temperature a horse can bear.

The desideratum to the owner of working-horses is a blister that will be so gradual in its effects as not to necessitate resting the animal. Between such a vesicant and that suitable for application to a "stale" hunter at the end of the season, when he can have four or five months' holiday before being got up from grass or straw-yard, there is a wide difference. The strain, concussion of jumping, and the blows received by the hunter necessitate an all-round blister which will serve to renovate tendon, excite absorption of deposits upon the bones, and promote growth of the foot. A cantharides, euphorbium, or biniodide of mercury blister may be then employed, and directions given to restrain the animal from inflicting injury upon himself while suffering from the acute pain such a preparation necessarily induces. Many horse-owners employ a veterinary surgeon to blister a horse simply because he attends to these necessary details, the owner having often a lively recollection of a former case in which the animal rubbed its eyes and nose on to the blister, and inflicted more or less serious injuries.

Whenever a severe blister is applied instructions should be given to secure the animal with double halters, or pillar-reins on each side, and not allow the horse to "have his head" until at least twenty-four hours after the application, and then not until the leg has been softened with vaseline or some other suitable unguent. A "cradle" will even then be advisable to prevent the horse from gnawing the limb when, as often happens, an intolerable itching follows upon the more acute pain felt during the rising of the vesicles. Cradles so-called are sold by most saddlers, but country chemists should know that any handy man can make one out of a few faggot-sticks, since the contrivance is nothing more than a few sticks threaded together at intervals and passed over the neck to occupy a position when tied from the angle of the jaws to the breast. The cradle precludes the animal from bringing his mouth in contact with his legs, though affording an amount of lateral movement, and allowing him to bite the grass or feed from the floor of his stable.

For splints, spavins, ossification of the lateral cartilage (side bone), &c., biniodide-of-mercury blister is to be preferred to fly blisters, as it is more lasting in its effect upon the absorbents. For a horse that is going to be rested after its application, the proportion of 1 in 8 of lard may be used. Lard is preferable as a base to vaseline, as the necessary rubbing-in makes the latter so soft as to fall off the limb while using it. A strength of 1 in 12, is suitable for repetition in a fortnight or less, where the object is to get rid of an enlargement of a bony character, but a still weaker ointment—say, 1 in 16—may be used on an animal that is kept at work.

When the parts are previously clipped they have a more workmanlike appearance, but we have known some of the most eminent veterinary surgeons not to have this done, their reason being that a greater degree of absorption is likely to result when continuous pressure is exercised by a hard scab retained by the hair.

Dispensers Wanted for the Army.

THIS seems an extraordinary statement considering the fact that the War Office, a few years ago, got the Local Government Board to sanction the appointment of ex-army compounders as workhouse dispensers. It is true, nevertheless. We learn that the Medical Department at Aldershot has, during the past ten days, been sounding certain quarters as to the probability of a supply of dispensers in the event of war. The request is couched in the following terms:—

SIR.—In the event of war in South Africa, will you kindly inform me whether you could guarantee the services of qualified dispensers for duty in the hospitals in Aldershot camp?

If so, please state how many you could procure and what notice you would require, for their services might be wanted at very short notice.

Liberal terms would be sanctioned. Could you give me any idea what remuneration would be demanded?

Quarters could not be provided, nor food, but lodgings can easily be obtained in Aldershot and Farnborough.

This precious document is signed on behalf of Surgeon-General Ams, Principal Medical Officer, Aldershot District. We do not desire to say anything to embarrass General Ams's good intention; but coming to us simultaneously with the news that Aldershot has made a draft upon London 'bus-horses, the style in which his deputy has written about qualified dispensers shows a lack of respect. It should be brought home to this gentleman that persons holding the Minor qualification are men of education, who cannot be secured in batches like so many beasts of burden. He has gone about his purpose in an entirely wrong way, and apparently in ignorance of what retail pharmacy is. There are enough qualified pharmacists in the Volunteer Service to take the places of all the army compounders who may be called abroad, and should that event unhappily occur, we feel sure that these Volunteers would quickly respond to any appeal by the War Office.

OUR YOUNGEST COLONY.

That is Rhodesia. It has a pharmacy law and a Pharmaceutical Society, although it has not yet in years reached double figures as a British possession. We had a letter from the Secretary of the Society on Friday of last week, saying that the Council had decided to adopt THE CHEMIST AND DRUGGIST as the organ of the Society. Accordingly the C. & D. will now go every week to every member of the Society. This makes the sixteenth Pharmaceutical Society in the British Empire on our list.

AN IMPORTANT BUSINESS FACT.

Business men will appreciate what the last sentence in the foregoing paragraph means. Most people in the drug-trade at home know how THE CHEMIST AND DRUGGIST stands in the esteem of the retail and wholesale sections of the trade, but few realise that to the Colonial chemist the C. & D. is so real a hebdomadal necessity that societies subscribe to it for the whole of their members. This is good for business, especially to those who advertise in THE CHEMIST AND DRUGGIST, because they have the assurance that their announcements are brought under the notice of a circle of home, colonial, and foreign readers which is absolutely unique in trade journalism.

ARGOLS.

This is the subject of a paper in the *Journal of the Society of Arts*, September 15, by R. Hedger Wallace. The article is a reprint of a portion of a pamphlet on the subject pre-

pared by the United States Bureau of Commerce, and published in abstract in the *C. & D.*, March 11, 1899, page 435. It would be but fair if the *Journal of the Society of Arts* would state the origin of the articles which it publishes during the dead season, as the unwary are frequently entrapped into considering them to be original.

THE GERMAN PHARMACOPÆIA.

We mentioned a few weeks ago that the committee of the German Pharmacopœia had completed its labours, and it was expected that the new edition would be published very shortly. We now learn on official authority that the Pharmacopœia has to be submitted and approved by the Bundesrath before it is printed, and in consequence the work may not appear until the beginning of next year.

MORPHINE IN COUGH-MIXTURES.

Mr. Braxton Hicks, the South London Coroner, has had peculiar experience in regard to cough-mixtures containing morphine. Ten years ago he succeeded in getting the Lord Mayor of London to declare that a proprietary medicine containing acetate of morphine should have been labelled "Poison." Previous to that such medicines were considered to be exempt from the Pharmacy Act provisions as patent medicines, but the late Mr. E. N. Alpe's opinion (given in the "Handy-book" which we publish) was that "patent medicine" in the Pharmacy Act means only medicines which are subject to letters patent. Mr. Braxton Hicks was the first to give practical application to that view in the case referred to, whereby the sale of an immense amount of dangerous physic previously sold by anybody has been properly controlled. Mr. Braxton Hicks's latest experience of morphine has not been quite so happy. He returned to his duties on Monday after a short illness, and in taking his chair said he wished to offer a piece of advice to the public—namely, never to use any medicine which had been kept for any length of time. He said so because his illness had been induced by taking a dose of a stale cough-linctus, in which the morphine had undergone changes. The circumstance that Mr. Braxton Hicks has been laid aside through taking a cough-medicine is in itself interesting—his precept being that one should go to or call in a doctor when ill—but his suggestion that the morphine had undergone changes is one of considerable value to pharmacists. It is not at all impossible that the alkaloid may in a complex acid linctus change to a slight extent into apomorphine; but the fact has not been previously observed, and Mr. D. B. Dott has proved that in ordinary acid solutions no such change of morphine ever takes place if the solutions are kept at the normal temperature. The case may be different in complex mixtures. We wonder what is Mr. Braxton Hicks's ground for saying the morphine had changed?

CINCHONA v. QUININE.

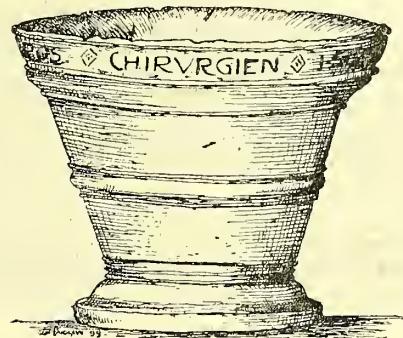
Surgeon-Major Prain, I.M.S., who succeeded Sir George King as Curator of the Botanic Gardens, Calcutta, has been home for a holiday recently, and we had a call from him one day this week. Major Prain is an alumnus of the University of Aberdeen, and apart from his connection with botanical subjects he has taken keen interest in cinchona questions during his residence in India. In the course of our conversation with him, Major Prain gave us some remarkable instances of the success which has followed the use of the amorphous alkaloids of cinchona in the treatment of fevers in India. The superior properties of cinchona febrifuge in the treatment of these fevers is really due to the fact that the febrifuge contains a large proportion of the amorphous products, and were it not for the fact that the administration of excessive doses of the febrifuge had helped to give it a bad name on account of its nauseating properties there is no doubt that long ere this the febrifuge

might have displaced quinine, at least in official circles, in India. That the antiperiodic and tonic properties of cinchona do not reside especially in quinine has long been conjectured by therapeutists, many of whom maintain that a preparation representing the bark in its entirety is much more effective. Major Prain mentioned to us a circumstance which is strong evidence of this fact. For some time a charitable dispensary in Bengal has been in the habit of getting from the Government quinine-factory a by-product from quinine manufacture which represents substantially everything except the quinine that is in cinchona-bark, and this by-product given in correct doses is much preferred as an antiperiodic by the natives to quinine, and undoubtedly is as effective a cure.

A PRIMROSE-MORTAR.

We have always wondered why Lord Rosebery is so clever a man, but have not until this week had an adequate explanation—a forebear of his was a knight of the pestle. That instrument is lost, but the mortar is in the museum of Hawick Archaeological Society. This is a sketch of it, which

◆ GILBERT ◆ PRIMROS ◆ CHIRVRGIEN ◆ 1569 ◆



we reproduce from the *Hawick Advertiser*. His Lordship has written to Mr. Robert Murray (Secretary of the Society), stating that the mortar belonged to an ancestor of his, who was a well-known physician in France in the middle of the sixteenth century, and who wrote several medical books. Lord Rosebery has nothing in his possession of so early a date connected with his family, and is very anxious to get the mortar. The committee of the Society are to endeavour to get the members' consent to give it to him. The line of type printed above the mortar is the inscription which goes round its circumference.

COMMISSIONS TO MEDICAL MEN.

The discussion on this subject is simmering down, and the medical journals are replacing indignation with definite statements. The *British Medical Journal* remarks—

Almost all the information obtained on the subject has come from the medical profession itself. Relations exist in some districts between medical men and chemists which amount to profit-sharing, if not to secret commissions. We do not hesitate to point out that this is open to grave objections, although we can understand that medical men who have been used to dispense and to gain a profit upon their drugs consider that there is nothing dis honourable in transferring this part of their business to a chemist's shop. The safe and proper course for medical men is to let their patients deal directly with the druggist, instrument-maker, &c., and to keep clear of all profit-sharing relations. If a medical man wishes to give up dispensing he is at liberty to send his patients to a chemist, but he must pay the chemist himself, and recover the cost of the medicines from his patients, or retain no interest whatever in the profit derived from their sale.

We fail to see why the doctor must pay the chemist. The really honourable course, and the best one in the long run, is to make the patient pay the dispenser. The *Medical Times* comes into the fray rather late in the day, and therefore has

to work off some steam before getting down to the point of its article, viz. :—

Now that the charge has been advanced again, it should be completely investigated and firmly dealt with. For the moment, we are willing to believe that Sir Edward Fry not only has definite facts at his disposal, but will be prepared to produce them in support of the serious allegations which he has made. It is not too much to say that no other course is open to him.

The *Lancet*, after indulging in the *tu quoque* argument (not a very dignified procedure for our venerable friend), insists,

with all respect, that Sir Edward Fry has given entertainment to charges against the medical profession on grossly inadequate evidence, and that the only way in which he can atone for such a misuse of his great authority is to use it in procuring for the General Medical Council and the medical corporations the whole of the evidence on which the London Chamber of Commerce based their report.

It may be well, before all is over, to repeat the two little paragraphs in the Chamber's Blue-book which have caused the trouble :—

A pharmaceutical chemist stated that "secret commissions are given by chemists to medical men on their prescriptions supplied to patients, in some cases amounting to from 25 to 50 per cent. on the price charged by the dispensing chemist."

An optician, jeweller, and silversmith wrote: "I have had about fifty years of business experience. About forty-five years ago it was customary for travellers to give buyers fees of 10s. 6d. and more in the electroplate trades at the expense of the makers. Recently a man of scientific eminence in Scotland received very large commissions for recommending a certain make of microscope. It is an open secret that hospital doctors receive commissions from makers of surgical instruments. The law should punish all those who give and those who take bribes. Sentences should always be imprisonment with hard labour without the option of a fine."

This, *plus* the Macdonald affair, is the evidence which Sir Edward Fry has of the offence. It is surprisingly little in view of the confirmation which the *British Medical Journal* now gives of the facts mentioned by us a fortnight since.

Crushed Linseed.

By EDWIN DOWZARD, F.C.S.

AS in many other cases, the 1898 B.P. limits for the above preparation allow an inferior article to be used; even the second quality of crushed linseed, supplied by the best makers, contains more oil and less ash than the B.P. article. According to Attfield, "linseed commonly contains 37 or 38 per cent. of oil" (see Attfield's "Chemistry," 1898, page 581). The ash of pure linseed is very constant, and never rises to 5 per cent. unless there is a fair proportion of husk present. In the following table the percentages of oil and ash are given for various qualities of crushed linseed supplied by different firms:—

		Oil	Ash		
				Per Cent.	Per Cent.
No. 1	...	39.9	3.4		
No. 2	...	38.7	3.5		
No. 3	...	35.7	3.3		
No. 4	...	32.3	3.5		
No. 5	...	32.0	3.4		

Birth.

[Notices of births, not exceeding 30 words, are now inserted at a charge of 2s. 6d.]

TOWERS.—On August 29, at 10 Railway Street, Chatham, Kent, the wife of Mr. Will. S. Towers, chemist and druggist, of a daughter (Margaret Isabelle).

Marriages.

BROWN—HEWITT.—On September 14, at St. Mary's Church, Stone, by the Rev. Canon Murray, Harry S. Brown, chemist and druggist, Bedford, to Lilian Agnes Hewitt, niece of Mr. J. J. Hewitt, of Stone Court, Greenhithe, Kent.

CLARKE—SHELBOURNE.—On September 12, at Rose Hill Wesleyan Church, Derby, by the Rev. J. G. Benson, Thomas J. Clarke, chemist, Derby, to Florence Mary, daughter of Mr. Wm. Shelbourne, of Derby.

HENDERSON—CARVER.—On September 9, at the Parish Church, Lowestoft, by the Rev. Canon Lawrence, Henry John Henderson, pharmaceutical chemist, to Lois Carver, only daughter of Mr. Henry Charles Carver, of Lowestoft.

HOPE—FAIRER.—On September 9, at St. Mary's Parish Church, Applethwaite, by the Rev. Canon Crewdon, M.A., Richard Hope, pharmaceutical chemist, formerly of Westhoughton, Lancs, to Margaret Fairer, Kirkby Stephen.

WATTS—HARDWICK.—On September 14, at Christ Church, Attercliffe, by the Rev. A. Payling, Herbert Watts, chemist and druggist, Darnall, to Sarah Ann, the youngest daughter of the late Mr. Thomas Hardwick, of Attercliffe.

WILSON—STORER.—On September 7, at St. Jude's Church, Nottingham, by the Rev. Andrew Ping, M.A., Harold Oates Wilson, chemist and druggist, Middlesbrough (formerly of Caerphilly, Glam), to Marion, second daughter of Mr. Richard Storer, Mapperley.

ZIMMERMANN—KURTZ.—On September 16, at St. Mary's, Shortlands, Kent, by the Rev. H. Wolley, Vicar, Max Joseph, third son of Mr. August Zimmermann, of Colonia, Bromley, Kent, and St. Mary-at-Hill, E.C., to Lina Mary, eldest daughter of Mr. J. August Kurtz, of Hill House, Bromley, Kent.

Deaths.

RITSON.—On September 12, at Bolton, Lancs, Mr. Robt. Russell Ritson, L.P.S.I., late of Castle Lane, Belfast. Mr. Ritson had been ailing for some time past from lung-trouble, and last summer he spent some months in the Canary Isles. The beneficial effects were, however, only temporary.

ROWLANDS.—On September 4, Mr. Richard D. Rowlands, chemist and druggist, Manchester. Aged 60.

SHARPLES.—On September 18, at Preston, Mr. J. G. Sharples. Aged 43. The deceased gentleman had been associated for some time with his father, Mr. G. Sharples, who carries on business as a pharmaceutical chemist at Fishergate, Preston. The late Mr. Sharples had charge of the photographic and electrical department and made a speciality of skiagraphs, his services being much in demand by the medical men in the town because of his intimate acquaintance with the working of the Röntgen-rays apparatus.

THOMPSON.—On September 10, Mr. John Thompson, wholesale druggist, Hanover Street, Liverpool. Aged 65.

WATERALL.—On September 7, Mr. George E. Waterall, pharmaceutical chemist, Nottingham. Aged 63.

WHITTAKER.—On September 11, at Runcorn, Mr. William Edge Whittaker, chemist and druggist. Aged 81. The late Mr. Whittaker served his apprenticeship with the late Mr. Peter Ward, of Runcorn, and subsequently started in business for himself in the old-established premises in High Street now occupied by Mr. J. H. Weston, where he earned a competency which enabled him to retire into private life some years ago. He held many public offices in the town, being a member of the old Board of Commissioners, a member of the Board of Guardians, and an Overseer of the Poor. He was also connected with the Savings Bank, the Runcorn Waterworks Company, the Runcorn Gas Company, the United Cheshire and Lancashire Building Society and Liptrot Charity, and the Weaver Trust. Mr. Whittaker was a staunch Conservative and strong Churchman, holding the offices of sidesman and vicar's warden respectively for several years. He took a keen interest during his life-time in educational affairs, being for many years a manager of the National Schools. He was also an ardent Volunteer, holding the rank of quartermaster-sergeant in the local corps.

Association Affairs.

Federation of Local Pharmaceutical Associations.

Mr. James Cocks, Edgcumbe Street, Stonehouse, Plymouth, Hon. Secretary of this Association, has sent out the following circular to local secretaries of the Pharmaceutical Society of Great Britain:—

Dear Sir,—I am instructed by the executive committee to send you a copy of a resolution adopted, and the rules as amended, at the last annual meeting of the Federation.

It is almost certain that the coming year will witness a vital struggle between registered chemists and unregistered persons who shamelessly usurp the titles and claim the position and functions of those who have obtained registration after examination. In view of the urgent necessity for more perfect organisation in every parliamentary constituency, the Federation desires to give all the assistance in its power, in conjunction with the officers of the Pharmaceutical Society—that is, the local secretaries—in forming new local associations. In districts where chemists are not numerous enough to justify expectation of sustained interest in monthly meetings, it is advisable to form some kind of committee or other organisation of local chemists. These smaller associations could meet, say, twice a year to consider, amongst other things, the local secretarieship and the business of the Federation. They would add materially to our fighting strength in protecting the interests of registered chemists, and would be available for immediate action if occasion should require it.

It is very desirable that the Federation should have the advantage of the experience of a representative of every local Association, and that every part of Great Britain should be represented.

Will you favour us with replies to the following questions herewith enclosed?

I am, dear Sir, yours truly,

JAMES COCKS,

September 15, 1899.

Hon. Secretary.

Then follow the rules of the Association and the subjoined questions:—

(1) Is there a local pharmaceutical or chemists' association in your immediate district?

(2) If not, would you be willing to accept such assistance as the Federation can offer to endeavour to establish some kind of association or committee in your town or district? (See rules 2 and 5.)

(3) Can you give the names of any towns containing five or more chemists where the Pharmaceutical Society has no local secretary?

(4) Can the Federation rely on your co-operation in an earnest effort to improve the organisation of registered chemists?

(5) Have you any suggestions to offer? If so, they will receive the careful consideration of the executive.

The Pharmaceutical Position.

A meeting of the North-East Lancashire Chemists' Association was held at the White Bull Hotel, Blackburn, on the evening of September 19, for the purpose of "receiving reports from the Plymouth deputation and a statement of the present pharmaceutical position." Councillor T. Critchley presided, and there was a fair attendance.

Mr. R. Lord Gifford (Hon. Secretary), in giving his report, found it difficult to say much about Plymouth accomplishments; in fact, he confessed at the outset that the deputation "accomplished nothing, or very nearly that." He and Mr. Councillor Shorrock had visited Devonshire with the special instruction to "endeavour to bring about an active agitation to be reorganised by the Pharmaceutical Council at once and persisted in." A meeting of the local secretaries of the Pharmaceutical Society of Great Britain was called for 9 A.M., convened at 9:30 A.M.; and, as members had to be at the Guildhall a quarter of an hour later, they could not do much to further the cause. So Mr. Gifford turned his attention to the Federation; but there, again, alteration of rules occupied the whole of the time. Nevertheless, the deputation insisted on a moment's consideration for this resolution, which was unanimously carried:—

That it is the urgent business of the Federation to bring about the earliest possible settlement of the question of chemists' titles.

That resolution passed, there was nothing left to the deputation but to influence individual members of the Pharmaceutical Council. The result of this was to produce on the

deputation a "condition of amazement that councillors can stand still, accepting a waiting policy, when every fact and circumstance seems to say, 'Fight, and fight again.'"

Although this condition was created in the last week of July, Mr. Gifford's plan of explaining it to Tuesday evening's meeting was to begin with THE CHEMIST AND DRUGGIST of September 16, where the preface to the article "Pharmaceutical Prospects" begins: "Profits have decreased, so have failures. Some men who are jealous for the good of pharmacy as an art are known to have suffered severely in these latter days." To the already breaking back of the poor pharmaceutical aspirant, continued Mr. Gifford, must be added "the teaching of bookkeeping or of the intricacies of ordinary buying and selling. What does this sort of double-talk amount to? It means that the best aspirations in pharmacy must be stifled, that the conscientious man cannot live under present conditions; but it is also an illustration of the sort of plucky stuff chemists are made of, and the fact that we have to repress our better selves, and of necessity cultivate our sordid and animal instincts. That we can go through training and education actually unfitting us for the battle of trade life, and then fight pure traders and capital on open, even unfair, ground, is an unconscious tribute to the 'grit' of present-day chemists; but is it not a pity, is it not a shame, is it not unjust, that we should have to prove our worth under such conditions?"

Next referring to the progress of the sciences during the past hundred years, Mr. Gifford asked the Pharmaceutical Council, in whose charge pharmacy has been for the most progressive third of that period, how much our calling has evolved? Whilst medicine, dentistry, and the whole world besides have been steadily marching on, we have actually gone back. No one can find a parallel to the Pharmaceutical Council of the last thirty years, and the only expiation it can make is to have now the courage of its convictions, and set about educating the drug-trade and fighting its battle. The Council has attended to its educational duty to the State and to pharmacy, and it is this fact which makes it possible to fight for a rational practice of pharmacy to-day. The committee of the Association was quite satisfied that the right and statesmanlike course for the Council to take is to formulate a Bill embodying all that it claims is necessary to establish pharmacy upon a sound foundation. This would be merely formal, but it is essential to give direction to pharmaceutical thought. Also the question of title should be fought, in the first place, at once by a test-case, which at the very least would demonstrate the law's absurdity; in the second, on the Companies Bill; and, in the third, whenever or wherever a fight can be had. Finally, Mr. Gifford explained that what "we are aiming at" is the goal of Jacob Bell and the founders of the Pharmaceutical Society—the creation of a profession of pharmacy.

Councillor R. Shorrock (Darwen), the other member of the deputation, said that the committee of Plymouth called the meeting of local secretaries during the Conference. The meeting, which was not called by the officials of Bloomsbury Square, created considerable amusement and suspicion from the fact that it brought several members of the Council, as well as the Secretary, Mr. Bremridge, to it. The latter evidently thought they were about to steal a march on them. They gave these members of the Council to understand that they were not satisfied with the way things were going on; that the local secretaries were a power in their hands if they would make use of them, but that it could only be done by bringing them together from time to time and exchanging ideas and suggestions. They had the assurance from the members of the Council that they would give the suggestion their greatest support, and next year a meeting may be held in London. The questions which Mr. Gifford and he had to deal with at the Federation meeting were of such a complicated and unfathomable character that it seemed to stagger them owing to the short time at their disposal, but he felt that the Federation would exercise a power in the country before many years went by.

Mr. Wells (Blackburn) was not satisfied with the work which had been done at Plymouth. Nothing at all had been done except what had been brought forward by members of North-East Lancashire. He thought their Association ought to have had a member on the Executive. He did not think the Federation would do any good until it met at a different time and place to that of the Pharmaceutical Conference.

Mr. Holt was also disappointed. He said the meeting of local secretaries was a farce. It appeared that the Pharmaceutical Council took it under its wing and added the egg. He could only think of the Federation meeting with disgust. It was plain that a number of delegates had determined beforehand to stifle any discussion as to the future policy of the Pharmaceutical Council, for they found a deliberate plan carried out to occupy all the time of the meeting in altering certain rules, crushing out the more important matter of future action in the crisis in which pharmacy was at present. The Federation was disliked by the Pharmaceutical Society, and the latter therefore employed some of its usual methods to stifle any discussion of its policy. That being so, it behoved their Association to reconsider its position as one of the federated Associations, for on the face of the above fact, and also of the newly-elected Secretary being at Plymouth, he despaired of anything being accomplished by the aid of the Federation. If they could not have personal qualification and the privileges such qualification ought to confer confined to the qualified, then there was an end to the matter. He thought the Pharmaceutical Society was not justified in accepting candidates and its fees without being able to carry out the other side of the bargain and secure to the men the privilege of that qualification. They found the Pharmaceutical Society ever ready to increase the stringency of the examination, and also to increase the fees, but the past twenty years showed how unready it was in increasing privileges, or in keeping those it had intact. The question of registering unqualified limited companies was not worth taking their coats off for. When they registered they recognised, and that was not what their Association was inclined to do.

Mr. Lomax (Darwen) was of opinion that it was no good supporting the Pharmaceutical Society unless it showed itself worthy of support. He did not think they should have to pay something for nothing. That, however, was what it amounted to at present. They ought to fight for the title of pharmacist—one who had passed examinations, and not the one who brought capital into the business—and unless they got that it was worthless to them. The condition of affairs during the last twenty years was due first to the inertia of the chemists themselves, but a large measure of the blame rested on the Pharmaceutical Council. If they had leaders, they should lead, but the policy seemed to have been that the rank-and-file should formulate the policy and lead.

Mr. Wells said that the Pharmaceutical Council had a policy. He believed it would take the shape of a clause to the Companies Act. He did not know exactly what the clause would be, but the effect of it, he thought, would be that no company should keep open shop unless all the directors were qualified. If that were done it would be a disappointment to the chemists throughout the country, for it would be of no use whatever to them. What was required was a new Bill prohibiting any limited-liability company using the title of chemist and druggist, and making it impossible for any retail company to sell or dispense poisons. After other remarks the delegates were thanked and the meeting adjourned.

Sheffield Pharmaceutical and Chemical Society.

The annual meeting of the members was held on September 20, at the Rutland Institute, and was well attended. Mr. George Squire (President) occupied the chair.

The annual report of the Council showed that there had been an increase in the membership, which now amounts to forty-nine members and twenty associates.

Arrangements have been made with the Sheffield University College for a three-years' course of instruction for the students of the Sheffield School of Pharmacy, all the classes to be conducted at the College.

From the statement of accounts it appeared that there was now a balance in hand of 8*l.* 10*s.*—a gratifying improvement on the state of things last year.

The report was adopted.

A ballot for the election of members of the Council resulted in the following being appointed:—Messrs. J. Austen, C. F. Carr, G. T. W. Newsholme, H. E. Ibbitt, S. T. Rhoden, G. Squire, J. F. Eardley, A. R. Fox, C. O. Morrison, J. B. Pater, J. Preston, and W. Ward.

Manchester Pharmaceutical Association.

The session will open on October 11 with a dinner at the Mosley Hotel, which the Council hope the members of the Association and other members of the craft will join in making a successful gathering.

Bradford and District Chemists' Association.

The annual meeting of this Association was held on September 19 at the County Restaurant. The following officers were elected for the coming year:—President, Mr. H. G. Rogerson; Vice-Presidents, Messrs. Silson and Waddington; Treasurer, Mr. Hanson; Secretary, Mr. J. A. Mitchell; Council, Messrs. Rimmington, Dunn, Mackay, Wilcock, Moulson, and Pickard.

Trade Notes.

MESSRS. ARTHUR H. COX & CO., pill-manufacturers, Brighton, send us a sample of a new style in which they are putting up Baud's pills for retail. Each gross of pills is packed in an illuminated canister of artistic design with the inscription, "Iron Tonic Pills, Baud. Dose, 2 or 3 with meals. Prepared from the British Pharmacopeia formula." The style is very effective.

MESSRS. FLETCHER, FLETCHER & CO., manufacturing chemists, Holloway, N., inform us that they have registered the firm as a private limited-liability company. This is to enable the principal members of their staff to participate in the advantages accruing from the expansion of the business. The step is purely formal, and does not entail any change in the conduct of the business, and no share-capital will be offered for subscription.

"CROWN" MEAT-AND-MALT WINE.—Messrs. Lamb & Watt, St. Anne Street, Liverpool, have introduced a new meat-and-malt wine, which they are placing on the market in half-bottles to retail at 2*s.*, and full-sized bottles to retail at 3*s.* 6*d.* The wine is made from a generous port, and the active ingredients are extract of malt of full diastatic power and Mosquera beef-jelly. The latter form of meat-compound ensures that the preparation will give rapid nutrition in cases of exhaustion and weakness without disturbance of the digestive functions. The "Crown" meat-and-malt wine is both pleasant to take and beneficial in those cases in which its use is indicated. It is put up in a stylish manner.

FLITWICK NATURAL CHALYBEATE WATER.—We understand that this natural mineral water, which has now for some years been before the public, is taking a new lease of life, and that the proprietors are determined to push it thoroughly. The water is one of the richest chalybeate waters, and has been used for many years in the treatment of anaemic complaints, and for other disorders in which iron is required. We find on analysis that the principal constituents are aluminium sulphate and ferric sulphate; 100 c.c. of the water yielded us 0.83 grammes of ferric hydrate. The water is of an amber colour, is strongly chalybeate to the taste, but a dose of it when mixed with lemonade forms an exceedingly pleasant pick-me-up draught. We suggest that as a pleasing form for the administration of the water, and those of our readers who would like further particulars about it should write to the Flitwick Dépôt, Goschen Street, Grosvenor Street, Camberwell, S.E.

THE *Public Health Journal* is responsible for the following poetical outburst:—

They sawed off his arms and his legs,
They took out his jugular vein,
They put fancy frills on his lungs,
And they deftly extracted his brain.
'Twas a triumph of surgical skill,
Such as never was heard of till then;
'Twas the subject of lectures before
Conventions of medical men.
The news of this wonderful thing
Was heralded far and wide,
But as for the patient there's nothing to say,
Excepting, of course, that he died.

Confectioners' Exhibition.

FROM a picturesque as well as from a business point of view the Exhibition and Market being held this week at the Royal Agricultural Hall, Islington, by the Confectioners and Bakers and Allied Traders, is an undoubted success. The exhibits, especially those of such firms as Caley, of Norwich, Fry, of Bristol, Batger & Co., of Ratcliffe, E., and the London Essence Company, of Camberwell Green, are of exceptional artistic merit. Looking down from the end gallery the most insistent feature in the hall is the elaborate green-draped and rose-festooned marqueses of CALEY & CO. Caley's exhibits—there are four in number—are each under separate tents; the whole thing is in perfect taste, and is surmounted by a representation of the Prince of Wales's feathers in green and gold. The keynote to the whole exhibition was aptly given by the criticism which we overheard from a country visitor, "Isn't it to the moon!"

There are few exhibits of particular pharmaceutical interest, the majority, as might be expected, being devoted to sweets and confections of all sorts, from the humble pine-apple drop to the costly chocolate creation. The exhibits attracting most feminine interest were those, like BATGER'S and others, presenting elaborate erections in sugar and spices, which the uninitiated pharmaceutical mind classed as wedding-cakes, without regard for the subtle distinctions between the wedding-cake and the christening or birthday variety. With these we have not much to do, but there were several firms well known in the trade who seemed to be creating considerable interest even among such diversified surroundings.

DR. TIBBLE'S VI-COCOA (LIMITED) had their familiar products on show in a neat little enclosure, where free cocoa in cups was being recklessly given away, while GATTI BROTHERS, in the Arcade entrance, dispensed hot chocolate. HOLLOWAY'S WINE COMPANY (LIMITED) had a tasteful alcove, hung with pink and green curtains and elaborate draperies, where Holloway's coca-wine and St. Holloway's quinquina were on tap. "Vinvire" meat-and-malt wine at the same stand seemed more attractive to some.

One of the most important exhibits in the Minor Hall was that of G. NELSON, DALE & CO. (LIMITED), who showed gelatine in all its stages, and a stack of liquorice lozenges tied round with a sash. A large variety of essences was also shown, and "Hipi," the new meat-product of the firm, was being successfully pushed. The latest delicacies at this stand were the gelatine creams, made with Nelson's gelatine and milk and flavoured with essences to taste. These were being dispensed gratuitously, and the demand showed appreciation. An advertising-medium in the shape of a booklet, "Round about Warwick," published by this firm, nicely printed on good paper, and containing copious photographic illustrations, was equally sought after as a souvenir.

THE LONDON ESSENCE COMPANY had, as before mentioned, a striking show, in a white and gold pagoda with a green silk roofing, of their essences, essential oils, and confectioners' colours. These seemed to be more numerous (if possible) than usual, and the show was too striking to be missed. Exhibits of a similar nature were provided by the CONFECTIONERS' VEGETABLE COLOURS AND FRUIT ESSENCE COMPANY (LIMITED), by the MANCHESTER CHEMICAL COMPANY—whose castle seemed to be a favourite rendezvous for visitors and to attract many weary wanderers—and THE ANGLO-CONTINENTAL WORKS (LIMITED), with a stuffed tigress grinning from the midst of an assortment of foliage and bottles of saccharin ("Tigress" brand) in powder, crystals, and tablets. At this stand eucasin, guaiacetin, and kyrofene looked learned but lonely.

There were many firms engaged in the exhibition of diastatic products. The EDMÉ MALT COMPANY had three separate exhibits, where the virtues of the Edme yeast, Edme malt, and diastatic malt extract were fully dilated upon by numerous attendants; the LONDON DISTILLING AND YEAST COMPANY (LIMITED) showed Domo yeast and Vejos, with the familiar Dargai piper and his attendants; the NETHERLAND YEAST AND SPIRIT MANUFACTURING COMPANY had a large exhibit of compressed yeast; the BRITISH MALT PRODUCTS COMPANY had the Lothian malt extract

on view, and the DISTILLEES COMPANY (LIMITED) had a strong exhibit of D.C.L. yeast, malt extract, and samples of bread and small goods in which these products had been employed. PEPTINE MALTINE (LIMITED) claimed special peptonizing properties for their malt extract and patent diastatic extract. These were nice-looking products, well got up, and are, we are told, being bought largely by wholesale chemists. MONTGOMERIE & CO. (LIMITED) also favoured a malt extract of their own preparation, but their principal exhibit was Bermaline extract, for use in the preparation of Bermaline bread. "Artocarpus" (bread-fruit), an extract of the fruits and a substitute for malt extracts or potatoes, was shown by D. WILKIN & CO.

Visitors had the interests of their animal pets properly and effectively catered for by SPRATT'S PATENT (LIMITED), who had a large show of their dog-cakes, biscuits, poultry and game medicines, and bird-foods. Spratt's latest line in biscuits is the 6d. packet variety. A new show-card for bird-seeds is an effective advertisement.

PARNALL & SONS (LIMITED) had two shows of shopfittings and utensils, and HOWARD & JONES had several stands devoted to advertising and photographic specimens, while a display of duplicating counter-books, receipt-books, and other goods of that sort was made by the LAMSON-PARAGON SUPPLY COMPANY (LIMITED).

The machinery section was well represented by W. GARDNER & SONS, who showed their Rapid sifters and mixers in various styles, elevators, hoists, and other machines. The imposing exhibit of WERNER, PFLEIDERER & PERKINS (LIMITED) in one of the bays attracted a great deal of attention. The BLACKMAN VENTILATING COMPANY (LIMITED) had several of the Blackman fans in operation, and a drying-apparatus for cocoa, coffee-beans, or chemicals.

Visitors were taught how to take care of their money in various ways by T. O'BRIEN with his patent self-closing receipt-giving check-tills, and by G. H. GLEDHILL & SONS (LIMITED) with their special variety of cash-till. All the rights in the Patent Voucher Check-till have also been acquired by this company. The BRITISH MACHINE COMPANY (LIMITED) (British Cash-register Tills), The NATIONAL CASH-REGISTER COMPANY (LIMITED), and the INTERNATIONAL CHECK-TILL COMPANY were likewise represented.

The Photographic Salon.

THE seventh annual exhibition of the band of enthusiasts—the "linked ring"—opens at the Dudley Gallery, Piccadilly, W., on September 22, and remains open till November 4. The exhibition consists of 256 pictures by about 100 exhibitors. The frames are arranged on an artistic background of green and drab canvas. There seems this year to be a greater proportion of figure-studies than usual, most of them being of a high order. In the matter of framing the pictures there are very few eccentricities this year, a style which seems to be getting popular being the placing of a small picture on a spacious background of rough art-coloured cardboard, and framing it with a very narrow frame. The effect is curious, but not unpleasant. Viscount Maitland still prefers his photographs named by copper labels. Another exhibitor has his picture enclosed in a broad copper frame decorated with a hammered design. There are two studies of "The Crucifixion" and "The Entombment" (56 and 57), by Mr. Holland Day, very reverently treated, but hardly suitable as photographic studies. "Road with Cattle" (59) is an example of a brilliant print suiting the subject well. Mr. J. B. B. Wellington shows some nice work in "On the Banks of the Ouse" (108) and "The Curfew Hour" (139), these being in appropriate drab carbon. Mr. Horsley Hinton's contributions are large in size and devoted to trees and rocks. No. 34, "A Vignette in Platinum," is a portrait in which photography must have played but little part; and 52, "La Cigale," is a blue print with a gold background. "When the Daylight Dies" (237) and "Sunset—Kirriemuir" (163) are noticeable from the delightful golden-yellow given to portions of the clouds.

The three portrait-studies by Mr. Ralph W. Robinson (109) are excellent, and the same may be said of the por-

traits by Mr. Histed. Mrs. Carine Cadby's best work is No. 231, a study of a hand holding grapes. Among other pictures which take the fancy are "Through the Fields" (54), "Close of a Stormy Day" (63), "Virginia" (81), "Elaine" (90), "On the Sussex Ouse" (179), and "Corpus Christi Day (Menton)" (248).

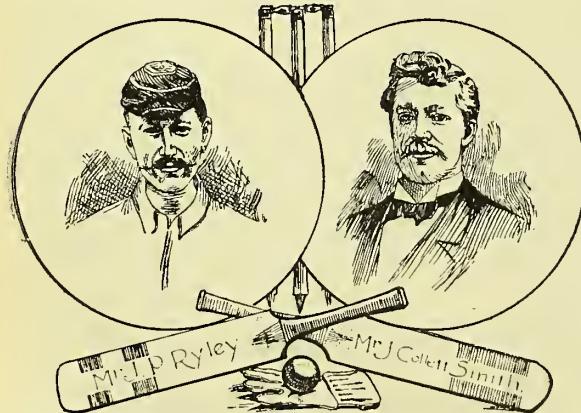
There are a few exhibits which seem to us out of place among so many examples of good work: one called "At Twickenham Ferry" (78) consists of a few smudges of lampblack on a piece of hand-made paper, and another we noticed, "A Turkish Sailor" (188), has just the appearance which an object would have on the retina of an astigmatic eye, and for that reason might help opticians with normal vision to appreciate the defect of astigmatism.

The Salon is an exhibition well worth a visit from any chemist interested in photography and art.

Wholesale Druggists' Cricket League.

THE final match of the cricket season, so far as the Loudon wholesale drug trade is concerned, between Burgoyne, Burbidge's C.C. and Kepler C.C., was played on Saturday, September 16, at Wadham Lodge, Walthamstow, the ground of the former club. The match was one of special interest, as the teams were at the head of the Cricket League with an equal number of points, and the victors would secure possession of the challenge cup and hold the title of Champion of the League for the season 1899. "Burgoynes" won the toss and sent in "Kepler" to bat on a very wet wicket. The bowlers evidently found it difficult to obtain a footing, and were further troubled by having to bowl with a wet ball. The "Kepler" men found their opportunity, and, making the most of it, by strong and brilliant batting ran up the very presentable score of 126 for the loss of five wickets, when they declared their innings closed. The principal scorers were Mace (42), Herbert (28), Coldwell (20), Purton (14), and Savidge and Lane, who did not lose their wickets and each had 7 runs to their credit. Selwood had the best bowling analysis for "Burgoynes," taking three wickets at a cost of 35 runs; Toombs took one for 21, and Moxon one for 50.

On "Burgoynes" going in to bat there occurred one of those unaccountable breakdowns which have occasionally astonished the supporters of cricket teams in the very highest positions in the cricket world. The "rot" which set in



was the more undesirable as "Burgoynes" have shown consistent good form all through the season, and a keen match was anticipated. Against the good bowling and the difficulties of the pitch, however, they were all dismissed in less than an hour for 33 runs.

It was arranged that stumps should be drawn at 6 P.M. sharp, and as "Burgoynes" had only an hour to bat when they went to the wickets it was impossible to win, and all they could do was to play for a draw. Cornwall and Humble were the first batsmen. With the score at 7 the first wicket fell, whilst ten minutes later four men were out with the score at 12. Coldwell was bowling very well, and had

taken three of the first four wickets. Later Bartlett performed the hat-trick. Mr. J. P. Ryley (B.B.'s captain) was the only man on his side to make anything approaching a score, being eighth man out for a creditable 15.

The excitement towards the finish was intense, the fielding and bowling of the visiting team being exceedingly keen. At five minutes to six eight wickets had fallen; three minutes later another fell, and the last man came in. The two men at the wickets scarcely moved their bats to stop the ball, and at six o'clock were still in possession.

The umpires decided to give one more over, amid protests from the batting team, and with the fifth ball of the same, and last of the match, Channon was bowled, leaving "Kepler" victorious by 93 runs. Coldwell, Bartlett, and Purton bowled excellently, the first named taking four wickets for 5 runs, Bartlett three wickets for 4, and Purton two wickets for 2 runs.

The following shows the record of the two clubs for the season:—

	No. of Matches	Played	Won	Lost	Points
Kepler C.C.	...	10	9	1	18
Burgoyne's C.C.	...	10	8	2	16

Our portraits are those of Mr. Collett Smith (Kepler) and Mr. J. P. Ryley (Burgoyne's), the captains of the rival teams.

A match was played at Wadham Lodge on September 16 between Evans, Lescher & Webb's C.C. and "Allenburys" C.C., and resulted in a victory for the latter team. Scores: "Allenburys," 59 for 5 wickets (F. C. Hanbury 18 and J. Norden 15); Evans, Lescher & Webb, 49.

Personalities.

MR. M. A. ADAMS, M.R.C.S., analytical chemist, has resigned his appointment as medical officer of health and public analyst for the borough of Maidstone, posts which he has held for twenty years. The Town Council has decided to continue to combine with the post of medical officer that of public analyst, the salary of the latter being £160 per annum.

MR. KARL FRITZSCHE, of Messrs. Schimmel & Co., Leipsic, has been in London during the past ten days completing arrangements for establishing a branch of his firm's business at 27 Mincing Lane. He was accompanied by Mr. H. Breitenstein, late of Galle (Ceylon), whom he is about to introduce to the trade as the manager of the new establishment.

MR. RICHARD C. WREN AND MR. H. A. POTTER, partners in the firm of Messrs. Potter & Clarke, wholesale botanic druggists, Artillery Lane, E.C., were members of a party who took a cruise to Norway in the steam-yacht *Ceylon* in June last, and the Polytechnic Institution, of 309 Regent Street, W., have just published an entertaining descriptive pamphlet on the record cruise made by the *Ceylon*. The pamphlet contains an illustrated account of the trip from Mr. Wren's pen, and Mr. Potter contributes a graphic and humorous description of a climb over the Folgefond, which he and several others from the yacht accomplished. Both the writers are gifted with good powers of observation, and succeed in telling what they saw in a way which is profitable to those who are likely to visit Norway, and at the same time it is just such a record as those who took part in this particular trip will cherish.

UNDERTAKER (sympathetically): "What ailed your wife?" Bereaved Husband: "Well, first she took a bad cold, then she took the doctor's prescription, then she took her bed, and between the three, they just laid her out."

FROM CORNWALL.—A chemist was called up at 2 o'clock the other morning by the ringing of his night-bell. On opening the door, he found a damsel, who told him she was going to a picnic that morning, and was out of rouge. The druggist assured her that he hadn't the stock to cover a cheek like hers.

American Pharmaceutical Association.

(From our Special Correspondent.)

THE address of President Dohme, on the first day of the annual meeting of this Association at Put-in Bay, was well received. He commenced by stating that he believed the "expansion" policy of the Government was an excellent thing for pharmacy as well as for all other business-interests in the country. Passing from imperial to pharmaceutical politics, President Dohme said he thought the tendency was towards too many associations. He recognised in the National Association of Retail Druggists a competitor with the American Pharmaceutical Association, and, while he commended the work of the former, he thought it should not be separated from the commercial section of the A.P.A. He held the opinion that professors and manufacturers should not be debarred from membership in the N.A.R.D. Coming to more intimate affairs, he reviewed the work of the A.P.A. during the previous year, and dwelt with pleasure on the evidences of the good work by its scientific, commercial, and educational sections. He recommended, amongst other things, a salary of \$1,000 for the Secretary, the advocacy of the metric-system by the Association, the extension of its uses, and the furtherance of the movement for national pure-food laws.

The address was referred to a special committee, consisting of Messrs. H. M. Whitney, J. F. Patton, and E. Kremers, and delegates from thirty associations, fourteen colleges, the N.A.R.D., the N.W.D.A., and the P.A. of A. were announced. Forty-four new members were elected, and a "nominating committee" appointed to select new officers for the coming year. As a result of the deliberations of this committee, the chosen President for next year is Professor Albert B. Prescott, whose likeness we reproduce. Dr. Prescott has

been an influential member of the A.P.A. since 1871, and is a chemist well known in this country, being an F.C.S. of London. He has been for many years Dean of the School of Pharmacy at the University of Michigan, and has occupied the presidential chairs of the American Association for the Advancement of Science and the American Chemical Society. He is the author of various works on chemistry. Messrs. S. A. D. Sheppard (of Boston), C. Lewis Diehl (of Louisville), and O. Caspari, jun. (of Baltimore), who have acted as Treasurer, reporter in pharmacy, and Secretary respectively for many years, were again re-appointed.

THE COMMITTEE ON PRIZES

recommended the following awards for papers presented last year :-

Ebert Prize to Henry Kraemer, for his paper on "The Examination of Powdered Drugs."

First General Prize to A. B. Prescott and H. M. Gordin, for paper on "Estimation of Alkaloidal Iodides and Periodides."

Second General Prize to J. U. Lloyd, for paper on "Standards for Black and White Mustard-seeds."

Third General Prize to W. A. Puckner, for paper on "Standardisation of Volumetric Acid and Alkali."

J. M. Maisch Prize to Henry Kraemer, for paper on "The Examination of Powdered Drugs."

COMMITTEE REPORTS.

The Committee on National Legislation, headed by Dr. F. E. Stewart, presented their annual diatribe on the patent and trade-mark laws. They still urge the adoption of their last year's recommendation that a trade-mark name be public property after a few years, inasmuch as a name, such as "Vaseline," for example, becomes part of the common language. The committee also stated that commercialism was a menace to pharmacy. Mr. A. E. Ebert, of Chicago, resigned his position on the committee, as his practice does

not square with its precepts. The section adopted the following resolution :-

That the U.S. Government be requested not to register as a trade-mark any word to be used as the generic or specific name of the article itself, and that symbols of figures only be registered as trade marks.

The Committee on the National Formulary are preparing an epitome of that work for distribution to physicians. The book will consist of 100 pages, 2 by 3 inches.

The Committee on Practical Pharmacy and Dispensing gave the best and most practical report that has been presented to the Association in recent years. The committee had sent out letters to 1,000 members requesting information and suggestions of a practical nature. They secured six replies, the only suggestion of practical interest being an improved formula for cold cream. Disappointed, but not discouraged, the committee went to work themselves and presented an up-to-date series of dispensing suggestions along the lines of the "Art of Dispensing," but adapted to American requirements. In addition, one of their number had instituted a comparison between the dispensing of today and that of forty years ago. From his prescription-book he had selected 1,000 prescriptions written in the years 1859, 1879, and 1899 by the same class of physicians and for the same order of customers. These he has tabulated, showing that while the proportion of mixtures is declining, more simple solutions (of alkaloids, &c.) are prescribed, fewer pills are made but more capsules filled, fewer powders but more ointments are dispensed, and the "ready-made pharmacy" is not the bugbear commonly supposed. Prescriptions for ready-made pills and capsules comprise only 4 per cent, tablets only 8 per cent., of the total, and any pharmacist can make these latter. Physicians, moreover, are chary of specifying special brands. Prices show a steady increase, the average being greater to-day than forty years ago. The tabulation also shows the number of times each drug was used, and it is interesting to note that fluid extracts are passing, mercury, opium, morphine, ipecac., digitalis, and hydrocyanic acid are being used less and less, and plasters in prescriptions have practically gone out. Incompatibles are also becoming rarer: thirty-one in 1859 against only one in 1899.

SCIENTIFIC SECTION.

Professor H. H. Rusby, of New York, presided, and his address was devoted to pointing out the necessity of the Association taking up the higher class of scientific research. The report of the Committee on the Revision of the U.S.P. recommended the omission of wines and brandy from the Pharmacopœia, and the substitution of sulphate of magnesium for the citrate in the effervescent salt. Both of these recommendations were opposed, but, finally, the report was accepted. The papers were numerous, and about of average value, those creating the most interest being on the subject of classification and examination of drugs.

DETERIORATION OF WILD-CHERRY BARK WITH AGE.

Professor A. B. Stevens gave the results of assays of this drug, and said that the bark is best preserved in airtight containers in the whole state, and that only whole fresh bark should be used for medicinal preparations.

COLOUR AND ODOUR STANDARDS OF DRUGS.

Professor Henry Kraemer presented a paper attempting to simplify the descriptions of powdered drugs. With a plate of twenty characteristic colours, he said, it was possible to give a fairly uniform description of any drug as regards its colour. He disclaimed any quantitative-value for this standard, and pointed out the difficulties in judging colour, owing to variation in light, colour of surrounding objects, &c.; still, it might aid students and compilers of text-books, and secure more uniformity of description.

Dr. W. C. Alpers claimed that the nose would, with cultivation, become as capable of yielding definite results as the analytical laboratory.

SECTION ON EDUCATION AND LEGISLATION.

The work of this section was decidedly inferior to that of past years. The papers were poor, and the proposed model of a pharmacy law on which the section has been at



DR. PRESCOTT.

work for several years seemed to have been ignored. This is largely due to the action of the members in not re-electing to office the two men who have done more than any men in America to further legislation in the interests of pharmacy—namely, Messrs. C. S. N. Hallberg, of Chicago, and J. H. Beal, of Scio, O.

PATENTED PRODUCTS IN THE PHARMACOPEIA.

A resolution offered by Dr. Kremers to the effect that a patent on a product should not necessarily bar its inclusion into the U.S.P. was laid on the table.

THE PATENT-MEDICINE QUESTION.

In his paper on "How to Manage the Nostrum Evil," Dr. Eccles makes some propositions which are likely to rouse opposition in proprietary-medicine circles. Secrecy and science, said the author, are as antagonistic as light and darkness, and the sole defence of secrecy in pharmacology is selfishness. Secrecy in medicine has not a single redeeming feature, and pharmacy and medicine are under a total eclipse by virtue of the nostrum evil. While the granting of patents by the Government is in the main a good and a just thing where a useful invention is concerned, Dr. Eccles reminds us that a monopoly in such a patent is only granted for a limited number of years. A trade-mark on a new brand of flour or a particular kind of shirt, hat, or collar is likewise just in principle because society is benefited by the protection in the increased quality and quantity of all such goods which the encouragement brings. But he failed to see what benefit is bestowed upon society by giving trade-mark rights to so-called patent medicines. He would, therefore, have a law prohibiting the trade-marking of everything tainted in the slightest degree with secrecy. An inventor who does not reveal the secret of his invention at the Patent Office can claim no protection in the Courts from anyone wishing to steal his secret from him; so what right has the Court to protect nostrum-makers in doing an act which he holds is clearly an imposition on the public? He would insist on every nostrum-proprietor filing the working formula of his preparation before he receives the protection of a copyright, and on seeing to it that no "fake" or in any way imperfect formulas are filed. Make such a deception punishable by a heavy fine, and have it sufficient evidence for conviction when three well-informed pharmacists testify that by following the directions given they can produce no such product as the one trade-marked. After a definite number of years any person should be permitted to make that same mixture and sell it by the same name, but should not be permitted to imitate the trade-mark of the original proprietor. In a pugnacious peroration on the iniquities of nostrum-proprietors, Dr. Eccles urged the A.Ph.A. "to act as France acted with the Corsairs in the Mediterranean, and fight this thing to the death. Let them be treated justly. Give them all the rights that others enjoy, but no more."

The Association resolved that no advertisements should be inserted in any official publication, and sent a letter of congratulation to Dr. E. R. Squibb in commemoration of his eightieth birthday.

Richmond, Va., was selected as the meeting-place next year, and a party will go therefrom to the Paris Exhibition, possibly visiting London and the B.P.C. *en route*. The meeting is to be held in May.

AIX-LES-BAINS has been well frequented this season, and bids fair to rival Vichy as a summer resort. The visitors have ranged from the King of Greece to Henri Rochefort. The bathing-establishment of Aix is, I should imagine, one of the best fitted and most complete in Europe, considerable extensions having been completed last winter. During a visit I paid to the town then I noticed that the Anglo-American element is pretty conspicuous. There were two English doctors and one dentist, while all the pharmacies make some announcement as to their capabilities to deal with English trade. M. Georges Bocquin, at the corner of the Place Carnot (formerly Place Centrale) and the Rue des Bains, displays in his window the Royal warrant by which he was appointed the Queen's chemist at Aix during H.M.'s stay there in 1885.

Photographic Notes.

BY A PHARMACEUTICAL CAMERIST.

THREE-COLOUR PHOTOGRAPHS.

A method which gives similar results to the Dassac-Chassagnes process was recently given in the *Mittheilungen*. The medium recommended was:—

Dried egg-albumen	...	...	...	30 gr.
Ammonia	...	...	...	30 minimis
Water	...	...	...	3½ oz.

Dissolve the albumen in the water, and add the ammonia.

A few drops of acetic acid are added if it is required to keep the solution for some time. The colours used are:—Red, safranine G extra; yellow, ammonium picrate; blue, methylene blue. Solutions are made from these by dissolving from 30 to 45 gr. of the red and yellow in 35 oz of water and 15 gr. of the blue in a like quantity of water. The medium is applied to the photograph as a first wash, the required colours are then applied, and followed by a final application of the medium.

ADUROL-DEVELOPER

MESSRS FUERST BROTHERS have sent me Hauff's latest formula for adurol. It differs slightly from what I gave on March 25, page 501:—

A.				
Sodium sulphite	...	...	...	3½ oz.
Adurol	...	...	...	170 gr.
Water	...	...	...	20 oz.
B.				
Potassium carbonate	...	...	...	2½ oz.
Water	...	...	...	20 oz.

For studio-work and snapshots use equal parts of A and B. For time-exposures outdoors add an equal part of water.

ONE-SOLUTION DEVELOPER.

Sodium sulphite	...	...	...	8 oz.
Potassium carbonate	...	...	...	6 oz.
Adurol	...	...	...	1 oz.
Water	...	...	...	20 oz.

For use dilute with from 3 to 5 parts of water.

PHOTOGRAPHIC LABELS.

A PHOTOGRAPHIC CONTEMPORARY recently had a competition as to what constitute the most suitable set of labels for an amateur. The result came out as follows:—

Acetic Acid.	Nitric Acid.
Alum.	Platinotype Developer.
Alum Solution.	Potassium Bromide.
Ammonia 10%.	Potassium Bromide
Ammonium Bromide.	10% Solution.
Ammonium Persulphate.	Potassium Carbonate.
Ammonium Sulphocyanide.	Potassium Ferricyanide.
Borax.	Potassium Hydrate.
Citric Acid.	Potassium Metasulphite.
Clearing Solution.	Potassium Oxalate.
Developer I.	Pyrogallic Acid.
Developer II.	Pyro. Solution 10%.
Gold Chloride Solution.	Reducer.
One grain in one drachm.	Sodium Acetate.
Hypo. Solution.	Sodium Carbonate.
Four ounces to the pint.	Sodium Hydrate.
Hydrochloric Acid.	Sodium Sulphite.
Intensifier.	Sulphuric Acid.
Iron Sulphate.	Toning Solution.
Mountant.	

The list is a useful one to photographic chemists; we have had it set up in the same form of type as that used for the labels, but, of course, smaller. The name and address of the chemist should be on each label.

DARK-ROOM.

Poole.—H. Ayre, The Poole Pharmacy.

Correspondence.

In writing letters for publication correspondents should adopt a concise, but not abbreviated, style. They are requested to write on one side of the paper only. Letters, with or without a nom-de-plume, must be authenticated by the name and address of the writer. Queries should be written on separate pieces of paper, and the regulations printed under the sections to which they apply should be strictly observed.

Amiral Soap.

SIR.—The attention of my directors has been called to a paragraph in your issue of September 16, in which you state "a meeting has been called in regard to the voluntary winding-up of this company"—a statement devoid of foundation, and one which is likely to do this company damage if not promptly contradicted and considerable publicity given to the contradiction. You evidently meant to refer to "The Amiral Soap Syndicate," a small syndicate originally formed to introduce the "Amiral Soap" in the market, and whose business and rights my company acquired in November of last year.

Yours faithfully,

THE AMIRAL SOAP COMPANY (LIMITED).

C. CARTER (Secretary, *pro tem.*)

3 Throgmorton Avenue, E.C., September 21.

Drugs for the Army.

SIR.—Our attention having been drawn to the paragraph in your issue of September 9, page 456, with reference to the Government analyst's report on drugs supplied to the Army Medical Department, we, as contractors to the Army, wrote to the War Office asking for an explanation. In reply, the Director of Army Contracts states:—

I am directed by the Secretary of State for War to acquaint you that the Government analyst tests samples of drugs and pharmaceutical preparations for the Army Medical Department which are not necessarily supplied by your firm.

He also wishes to add that it was not alleged that the ether referred to in the report was supplied by us.

We are, Sir, yours faithfully,

DAVY, HILL & SON, YATES & HICKS.
64 Park Street, Southwark, September 18.

Dublin School of Pharmacy.

SIR.—Having read with interest the discussion on the advisability of introducing theoretical chemistry into the School of Chemistry at the Irish Pharmaceutical Council-meeting last week, I heartily concur with what Mr. Michie proposed. Theoretical chemistry has been taught as far as it applied to the analytical tables, and then did to extend to explanations of the reactions which occurred. During the time I attended the school I do not believe there was ever an equation on the board, save with respect to volumetric analysis. I think it a fallacy to contend that this is theoretical chemistry in the sense it is generally taken. Again, any person who would take the trouble to compare the examination returns will not fail to be struck by the average deficiency in that branch of the Licence examination; and Mr. Doran, the late chemistry examiner, always contended that it was never properly understood by the candidates. I thank the Council for taking a step in the right direction, and would ask them to bear in mind that the students have not unlimited means at their disposal.

Yours truly,

STUDENT. (119/70.)

The Dublin Death-rate.

SIR.—The Dublin death-rate is 42 per thousand, yet the principal medical officer of health seems to have so little to do that he offers his leisure time as analyst to almost every Poor-law Union in Ireland. It is not to be wondered at that a man of his reputation should be selected before comparatively unknown men, who may yet be especially skilful in the work required. But should any contractor like to contest Sir Charles Cameron's analyses on the ground

that the work was done vicariously, and not personally, he may be able to place the Guardians in a serious predicament. It is obvious that, if Sir C. Cameron has such ample time on his hands that he can do all the analyses himself, the ratepayers of Dublin have something to grumble at, because they pay him 1,200*l.* a year to look after the health of the city. If, on the other hand, the analytical work is done by his assistants, it will be scarcely possible to obtain a conviction against a contractor on his certificate.

Yours truly,

M.P.S.I. (118/1.)

Legal Queries.

We do not give legal opinions by post. Information regarding most legal matters in connection with pharmacy will be found in THE CHEMISTS' AND DRUGGISTS' DIARY, and in "Pharmacy and Poison Laws of the United Kingdom," and Alpe's "Handy-book of Medicine-stamp Duty."

117/13. *N. B.*—Salt of lemon is not a scheduled poison; oxalic acid is, however. We do not define salt of lemon at all, but you will find an historical note on the origin of this preparation in "Pharmaceutical Formulas," page 308.

110/62. *Acorn.*—Wood-naphtha may be used for making a compound tincture of myrrh or any other preparation you like so far as the Inland Revenue authorities are concerned. It is illegal, however, to use pure methyl-alcohol which has not paid the 10s. 6*d.* per proof gallon spirit-duty.

113/3. *Acetum.*—(1) The quantity of rectified spirit which may be sold for scientific purposes without a licence is 8 oz. at the most. (2) We have no doubt that any of the surgical-instrument makers will be able to supply you with the fixtures for a dental chair.

117/56. *Hypophos.* (Chorley).—It is not unusual nor illegal for Guardians to specify particular kinds of goods which they require—*e.g.*, Calvert's carbolic soap, Howards' quinine, and Oswego cornflour. Such a stipulation as the following is not illegal:—

Tenders for drugs (which must be obtained from Messrs. Woolley & Co., of Manchester) must state what discount will be allowed from Messrs. Woolley & Co.'s price-list, as supplied to medical men, and the drugs to be delivered at the workhouse in the original bottles and packages as received from that firm.

The Guardians have to ensure that drugs are of good quality, and this, apparently, is their method of doing it.

114/27. *Drugs* asks:—"Is it legal for me to use the word 'Dr.' on label of any preparation which I may put up, such as 'Dr. Thompson's Cough-elixir'?" [Legal as long as care is taken that the surname is not the same as the name of the retailer, so that the use of the prefix "Dr." does not imply that the user is a registered medical practitioner.]

Miscellaneous Inquiries.

110/71. *Scotch Subscriber.*—The composition of the Stable-drink "for chill, shivering, blowing, exhaustion, gripes, and congestion," we find to be after the following formula:—

Pot. acet.	...	...	...	...	3 <i>j.</i>
Spt. camphor.	...	...	...	...	3 <i>ss.</i>
Ol. caryoph.	...	...	...	...	my.
Tr. arnicae	...	...	...	...	3 <i>jj.</i>
Tr. opii	...	...	...	...	5 <i>j.</i>
Aqua ad	...	...	...	...	3 <i>j.</i>

M.

For one draught.

Directions.—Mix the drink with $\frac{1}{2}$ pint of cold water and give it from a bottle; if necessary, in urgent cases, repeat in half an hour.

110/16. *W. G.*—There is no elementary inorganic chemistry book precisely on the lines of the British Pharmacopœia, nor do we see what advantage such a book would be. One of the best works we know of to put in the appen-

tice's hands is Ramsay's "Elementary Systematic Chemistry." It is a book not so well known in pharmaceutical circles as it should be. Several young students to whom we have given it have made greater progress with it than with any other of the elementary books. Professor Collie has introduced it recently to the School of Pharmacy, we believe, with excellent results. It is a mistake to give pharmaceutical students the excessively popular little handbooks that are used by schoolboys, but if you would like something of that kind which is really good, get the reading-book published by Blackie, of Edinburgh, entitled "Young Chemists."

107/4. *Ruby Chimney*.—Dark-room Charges.—If plates are purchased from you it is not customary to charge for the use of the dark-room in changing the plates. For its use in developing the charge is at the rate of 1s. per hour. For developing customers' quarter-plates, 2s. 6d. per dozen, and for printing, toning, and fixing, 2s. to 3s. per dozen, are fair charges.

117/15. *Blood-mixture*.—The addition of 1 oz. of magnesium sulphate to an 8-oz. mixture containing potassium iodide (Fowler's solution) and compound decoction of sarsaparilla is not a bad idea at all from a therapeutic point of view, and it will, no doubt, be of material assistance as an antiscorbutic. The large amount of saline, however, causes precipitation of some of the extractive matter of the decoction, and the mixture should, in consequence, be filtered. This will not impair its properties.

116/39. *J. W.*.—You have overlooked the note with which we prefaced our reprint of the Canadian formulas for the B.P. In that note we stated that the formulas would require careful revision. This was intended to save us from being blamed for the blunders which occur in the formulas. You should have no difficulty, however, in adapting the formula for Parrish's syrup to suit your purpose, seeing that you have the ability to criticise the formula. For other recipes we would refer you to "Pharmaceutical Formulas."

112/74. *Vivum*.—In regard to brewing-books see reply to "J. M." last week.

113/42. *Mineral*.—There are several chapters in "Pharmaceutical Formulas" which contain formulæ and particulars about preparations used by confectioners and aerated-water manufacturers. Skuse's book on confectionery is published at 7s. 6d. by Messrs. W. J. Bush & Co. (Limited), Artillery Lane, E.C. It deals with the manufacture of all kinds of liczenges.

113/23. *H. Williams*.—Dr. Luff, 31 Weymouth Street, W., is a rising authority on the treatment of gout. For chest-diseases Sir Douglas Powell, 62 Wimpole Street, W., is a leading authority, but he is at present in attendance upon the Queen at Balmoral. Dr. E. S. Thompson, 33 Cavendish Square, W., is another whom you may consult.

Information Wanted.

The Editor will be obliged for replies to the following from any who can furnish the information.

118/23. Is there a London agent for Alberts' remedy for rheumatism made by Hughes of New York?

Lending Syphons.—Wilts (114/32) asks:—"What is the custom of the trade in regard to bursting of syphons while they are in the possession of customers? Whose is the loss?" The syphons are "Wilts's" property. We should be glad to have an expression of opinion from those who have had experience on this point.

Coming Events.

PENNY SCIENCE LECTURES.—The programme for the autumn series of lectures to be given at the Royal Victoria Hall, Waterloo Bridge Road, is as follows:—October 3: Professor Holland Crompton on "The Value of Nitrogen." October 10: Professor Ramsay on "Liquid Air." October 17: Dr. C. G. Cullis on "Source and Course of the River Thames." October 24: Dr. Russell on "Photographs Taken in the Dark." October 31: Captain Barrett Hamilton on "Kamchatka."

Trade Report.

The prices quoted below are the bottom prices obtained for bulk quantities by importers and manufacturers, who do not supply retailers. They are in many cases exclusive of various charges.

42 Cannon Street, London, E.C.: September 21.

BUSINESS in the drug and chemical markets remains fairly brisk, with a firm undertone in most articles. There have been no important price-fluctuations this week. Cocaine is, however, dearer in second-hands, and in good inquiry; opium has also advanced about 3d. per lb. on the London market, and morphine-makers appear to be laying in stocks in anticipation of higher prices later, now that the United States is in the field. Manufacturers have also raised their prices for codeine and its salts. Benzoin has been in good inquiry since the auctions, and ipecacuanha is selling in a quiet way at steady rates. Menthol and glycerin are dearer, refiners of the latter article in some instances being without quotations. The following table shows the principal movements of the week:—

Higher	Firmer	Easier	Lower
Arrowroot	Cocaine (sec. hands)	Copper sulphate	Ammonia sulphate
Chamomiles		Saffron	Quinine
Codeine		Shellac	
Glycerin			
Linseed			
Menthol			
Oil, linseed			
Oil, sassafras			
Opium			

The following drugs, &c., have arrived at the ports of London from Liverpool, Southampton, and Hull, from September 14 to 20, both inclusive:—Bird-lime (Jap.), 33; cardamoms, 4; castor oil (Ital.), 75, (Belg.) 28; chamomiles, 10; camphor, 137; cardamoms, 6; castor oil (Fr.), 507; cinchona (Ceylon), 19; cod-liver oil, 1,861; cocaine (crude), 6; cochineal, 20; cod-liver oil, 22; coriander-seed, 10; galls (Prsn.), 336; gentian, 13; gum arabic (Aden), 110; insect-powder, 28; ipecacuanha (Cart.), 79; kola, 3; lime-juice (W.I.), 197; liquorice-root, 2,080; mastic, 1; nux vomica, 100; opium, 306; orris, 3; saffron, 1; sarsaparilla, 21, (*via* Hamburg, 70; senna, 14; squills, 9; tamarinds (E.I.), 125, (W.I.), 1; wax Japanese, 105.

The Zanzibar Clove-crop.

It is predicted that the Zanzibar clove-crop will be a light one this year, although the quality is expected to show an improvement. Last year clove-picking commenced in October, but this season a small quantity was gathered in July, the early picking being attributed to the drought and the large crop of 1898-99. It is impossible to estimate at present what the approximate yield will be, but according to the *Shamba* those who gathered 1,500 frasilas last year (1 = 35 lbs.) will be lucky if they secure 500 this year. That journal is trying to impress upon shamba-holders the importance of beginning to pick as the trees begin to ripen, as the crops, they say, cannot now be swept off as in the old days when slaves were as plentiful as locusts. They are also requested to pay attention to quality, as clean, well-dried, even samples of cloves are appreciated on the London market.

The Turpentine-market.

In an interview with the representative of a Savannah newspaper a prominent naval-stores dealer has stated that the days of 25c. and 35c. turpentine are past. Last year's crop he considered as the maximum. That of this year might have exceeded it by 150 per cent, but for the frost in the spring, which reduced it by 20 per cent. High prices, he considered, will be maintained until April 1, 1900. Every barrel will be in demand, and there will be less carried over

on April 1 than ever before. Another circumstance which will tend to keep up prices will be scarcity of labour. The phosphate-industry of South Carolina has been unusually active, and labourers have deserted the turpentine-lands to engage in it. The mines, lumber camps, and railroads too, where equal pay can be secured with less work, have carried away a large proportion of the negro hands; while a number of coloured labourers have taken up small farms, where they can live with the minimum of toil. Again, turpentine-land is limited, and cost of transportation has increased.

Cinchona in the Nilgiris.

At a meeting of the Nilgiri Planters' Association at the Masonic Hall, Ootacamund, on August 4, the Hon. Secretary referred to the opening-up of 800 acres of cinchona by Government at Neddavattum, and pointed out that Government were acting in direct contravention of two specific promises made to planters to the effect that they would not compete in private enterprise. It was pointed out that Mr. Standen's report on cinchona in Java would show that there is sixteen years' supply there available, and, further, many planters thought that the bark could be imported much cheaper than at what it now costs Government to produce it on the Nilgiris. He (the Hon. Secretary) had addressed the United Planters' Association with a view to asking Government to suspend operations, but he received a reply to the effect that it was useless to approach Government in the matter, as they were determined to carry out the planting of cinchona.

Sicilian Essential Oils.

A City house supply us with the following report from Messina, which confirms what we published last week:—

Oil of Lemon.—The harvest will be about the same as last year, but the fruit is damaged and dry, and the yield of oil will be below the average. The price of new oil is likely to rule somewhat higher than present quotations.

Oil of Bergamot.—Reports from the producing districts state that the trees have been damaged by the hail during the past two months; notwithstanding this an abundant crop is anticipated, and we think that prices of new oil will remain as they are now.

Oil of Orange.—The crop is expected to be very small, and producers are therefore holding back. We think we will see much higher prices during the season.

Heavy Chemicals.

[These prices are for other market-centres than London.]

Prices for the main products of the heavy-chemical market are well maintained at the lately advanced figures, and, if anything, the general tone shows a still further improvement, owing to the particularly brisk demand. The Tyne and Clyde markets are busier, and in Lancashire also there is more inquiry both for prompt and forward delivery. Miscellaneous products are steady, and the demand for home-consuming trades is a good one.

ALKALI PRODUCE.—The good demand for bleaching-powder still continues, and it is also pleasing to note that good orders are being booked for next year's delivery at the advanced prices. Present quotations are: Softwood casks on rails, 5*l.* 5*s.* per ton; f.o.b. Liverpool, 5*l.* 7*s.* 6*d.*; and f.o.b. Tyne, 5*l.* 17*s.* 6*d.* to 6*l.* Stocks of caustic soda are very low, and prices are firmly maintained. Soda crystals are in brisk request, particularly for home trade. Alkali and soda ash are also very firm. Chlorates of potash and soda at present show no notable change, standing at 3*½d.* to 3*¾d.* and 5*¾d.* per lb. respectively, but their tone is firmer. Yellow prussiate of potash is scarce, and stands higher and firm at 7*¾d.* to 8*d.* per lb. for best Lancashire makes. Salt-cake is steady at late rates.

TAR PRODUCTS show little variation in prices, but they are moving more freely.

SULPHATE OF AMMONIA is weak and lower. Beckton, October-March, 11*l.* 15*s.* per ton; Beckton terms, 11*l.* 2*s.* 6*d.*; Hull, 11*l.* 15*s.*; Leith, 11*l.* 16*s.* 3*d.*; and London, 11*l.* 17*s.* 6*d.* Exports from Leith last week amounted to 467 tons.

ALUMINA PRODUCTS are in steady demand, with prices firm and towards advancement. Fair business is being done over next year. Best makes of pure sulphate of alumina, 78*s.* 9*d.* to 83*s.* 9*d.* per ton in usual casks on rails, with usual allowances for bags or loose slabs. Crystal alum is moving better: loose lump, 4*l.* 12*s.* 6*d.* to 4*l.* 15*s.*; lump in tierces, 4*l.* 17*s.* 6*d.* to 5*l.*; and ground, 5*l.* 5*s.* to 5*l.* 10*s.* per ton in bags, free on rails. Alumina ferric, 42*s.* 6*d.* to 45*s.* per ton. Aluminous cake, 45*s.* to 50*s.* per ton. Hydrate of alumina, high percentage, 11*l.* 15*s.* to 12*l.* 5*s.* per ton in casks. Bauxite 60-per-cent. alumina, 16*s.* 6*d.* per ton, f.o.b. Carbonate of alumina, 35*s.* to 37*s.* 6*d.* per cwt. Aluminite of soda, highest strength, Al₂O₃, 37*s.* 6*d.* to 40*s.* per cwt., according to quantity.

TIN CRYSTALS.—Very steady at 10*l.* 6*d.* to 11*l.* per lb.

Liverpool Market.

Liverpool, September 20

CASTOR OIL.—The position of good seconds Calcutta is a strong one; about 600 cases have been sold at 2*½d.* per lb., and it is doubtful if more can be had under 3*d.* per lb. First pressure French is held for 2*¾d.* to 2*½d.* per lb. There are inquiries for seed, but it seems scarce in all markets.

CANARY-SFED.—Turkish remains steady at 4*c.* A parcel of Morocco is offered at 45*s.* per quarter.

GUM ACACIA.—There have been further sales of Soudan sorts at 62*s.* 6*d.* per cwt., but very little is offered at the figure.

SULPHATE OF COPPER is quoted 25*s.* per ton prompt, and 25*s.* 10*s.* for forward delivery.

IRISH MOSS.—Further sales have been made at 6*s.* 10*s.* per ton.

HONEY.—A recent arrival was offered at auction and bought in at 47*s.* 6*d.* per cwt.

CHILLIES.—A sale of bright Sierra Leone has been made at 60*s.* per cwt.

German Drug Market.

Hamburg, September 19.

There have been only a few alterations of importance since last week.

ALOES, CAPE. is firm, at 51*m.* to 52*m.* per 100 kilos.

ALOES, CURACAO. 34*m.* to 35*m.* per 100 kilos.

CITRIC ACID is quiet, at 300*m.* per 100 kilos.

CAMPHOR, REFINED. is very quiet; second-hand sellers want 320*m.* per 100 kilos.

CONDURANGO-BARK has advanced, holders asking 150*m.* per 100 kilos.

COCA-LEAVES are firm and dearer; to-day's quotation for Bolivian leaves is 275*m.* per 100 kilos.

CUMIN-SEED.—Maltese is firm, at 58*m.* per 100 kilos.

COCAINE is firm; second hand demands 570*m.* to 580*m.* per 100 kilos.

ERGOT OF RYE.—Scarce; good quality, 430*m.* per 100 kilos.

LYCOPODIUM continues firm; to-day's quotation is 285*m.* per 100 kilos.

QUININE.—Quiet and neglected. Second-hand sellers ask 36*m.* per kilo.

SPIRIT OF TURPENTINE.—Excited. Prices advanced considerably; spot demands 77*m.* per 100 kilos.

WAX, JAPAN.—Firm, at 57*m.* per 100 kilos.

WAX, CARNAUBA.—Unchanged, at 80*m.* to 130*m.* per 100 kilos.

WORMSEED.—Very firm; good demand, at 48*m.* to 55*m.* per 100 kilos.

OILS, ESSENTIAL.—Peppermint oil is quiet; HGH, 4.80*m.* per lb. Japanese peppermint oil, 7*½m.* per kilo.

OIL, CARAWAY. is firm, at 9.35*m.* per kilo.

OIL, ANISE.—Russian 13*m.* to 14*m.* per kilo.

American Market.

New York, September 12

The drug-market is rather quiet, although general business is very satisfactory.

OPIUM is firmer, in sympathy with cable advices, but the demand is very small. Quotations are a trifle higher, \$3.20 being the inside figure in case lots.

QUININE is easy, and holders are willing to sell freely. Manufacturers quote 28*c.* to 30*c.*, and second-hands 26*c.* to 27*c.*

COCAINE is very strong, on account of scarcity of crude. An advance of 75*c.* has been made—a total of \$1.75 per oz. since August 1. Quotations are firm at \$5 to \$5.20 for bulk, and higher figures are anticipated.

CINCHONIDINE is in light demand, and quotations have declined to 28*c.* The market is weaker.

SUGAR OF MILK is strong at 10*c.* to 12*c.* for powdered, and an advance is expected.

SENEGA is unchanged. Some Southern root is coming forward, and prices are firm at 35*c.* Western root is nominally unchanged at 36*c.*, but large holders are not offering.

OIL OF SASSAFRAS is scarce and stronger. Dealers have advanced prices up to 33*c.* to 34*c.*, according to quantity.

COLOCYNTH is easier, in accordance with advices from Trieste; from 31*c.* to 35*c.* is asked for ordinary quality.

SOAP-BARK.—Whole bark can be bought at 3*½c.*

ACONITE-ROOT is very scarce, and 15*c.* is now asked.

CAMPHOR.—Importers of Japanese have withdrawn from the market, and quotations are nominal. Domestic refiners continue to quote 44*c.*

GOLDEN-SEAL is in fair demand, and quotations are unchanged at 50*c.* Considerable quantities are still being dug, and a decline is anticipated.

Japanese Market.

Yokohama, August 17.

A better tone prevails in this market, ss is the rule at this time of the year. In import articles I have to report an advance

in boracic acid, which is quoted 18.50 yen per cwt. for arrival; and sugar of milk has also advanced, owing to scarcity and high price in America and Europe; holders now want 38 yen per cwt., with buyers at 36 yen. Carbolic acid is easier at 40 sen per lb. (10-cwt. lot). Importation of alcohol was practically checked after August 15, on account of the 250-per-cent. duty which came into force on that date. Present stock is estimated at about 200,000 cases (120 lbs. net.) and 3,000 barrels (200 lbs. net). Holders now want more money, and some 1,000 cases have changed hands to-day at 14 sen per lb. The price is tending high. Glycerin has advanced at 27½ sen per lb. in tins, but before advance took place some 200 cwt. changed hands at 26 sen. There is no stock of Brunner's soda bicarbonate, but U.S. make is coming in, and business was done recently at 3.80 per cwt. for 1,000-cwt. lots. Holders of Brunner's quote 4.30 yen per cwt. Potash bichromate has declined to 15½ sen per lb. Quinine is a shade easier, muritate being 100-oz. tin 85 sen, and sulphate 68 sen. Santonin has sprung up, 4.25 yen per lb. now being quoted in some quarters. Cocaine is steady at 7.30 yen per oz., and a further advance is expected.

In export articles sulphuric acid is 2.25 yen per 100 lbs for 65-per-cent.; muriatic acid, 2.40 yen per 100 lbs.; bleaching-powder, 5.25 yen per 100 lbs. for 33-per-cent. quality. No business is reported in ginger, but as stock is well concentrated in the hands of a few wealthy merchants, who are of opinion that this season's crop will be small (owing to decreased acreage under cultivation), the market is steady at 8.40 yen to 8.50 yen per picul. The first harvest of oil of peppermint has finished in Bingo province, and the general harvest of the season will be small. There are still "bears" in the market. Oil quoted 2 yen per catty; menthol crystals 4.20 yen per catty, with a little business.

Cablegrams.

HAMBURG, September 21, 1.22 P.M.:—Quinine is dull, at 32m. per kilo.; refined camphor is cheaper, at 315m. per 100 kilos. Conduango is firm, the latest price being 160m. per 100 kilos.

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NEW YORK, September 21:—A steady business is being done. Both Russian and Spanish ergot of rye have been advanced to 48c. and 60c. per lb. respectively. Golden seal (*Hydrastis Canadensis*) is very firm at 52c. per lb.; and for Curaçao aloes—a scarce article—4½c. per lb. is quoted. Rio ipecacuanha is slightly easier, at \$3.40 per lb., as is also opium at \$3.15 per lb. Quinine is unsettled at 25c. per oz. for domestic make.

London Markets.

ACETANILIDE.—The market continues unsettled, and the range of quotations is from 9½d. to 10d. per lb., according to quantity, the inside figure being for ton lots.

ACID, CITRIC.—A dull market at last week's quotations. Concentrated juice is quoted 15d. per pipe, c. and f. terms.

ACID, OXALIC.—Unchanged at 3d. to 3½d. per lb., net, delivered free London. The syndicate of German manufacturers terminates at the close of the year, but according to Berlin reports it is likely to be reorganised. If, however, negotiations should fall through, a decline in the present low prices may be expected. Manufacturers are already competing for next year's business.

ACID, TARTARIC.—Firm at 1s. 1d. per lb. for English, and 1s. 0½d. for foreign.

ARROWROOT.—Firm, but quiet; the St. Vincents offered at auction on Wednesday was bought in at 4½d. per lb. Privately St. Vincent has sold at 4d. to 4½d. for middling to good.

ASAFETIDA.—We understand that a fair business has been done this week, at from 52s. 6d. to 55s. per cwt. for export.

BALSAM COPAIBA.—Small sales of Central American are reported at 1s. 3d. per lb., while good Maranham is held for 1s. 5½d. to 1s. 6d. per lb.

BELLADONNA-ROOT.—Good German root is very scarce on this market at from 39s. to 40s. per cwt., according to holder. Trieste advices report that stock is coming forward very slowly so far, and from that port there are offers at from 35s. to 38s. per cwt., c. and f.

BENZOIN.—Since the auctions some 40 cases have been sold at prices ranging from 6l. to 7l. per cent. for ordinary

and middling Sumatra gum, and several other lots are in process of negotiation. Arrivals this week include 19 cases Palembang and 20 cases Sumatra. Palembang gum has also been sold to the extent of some 50 or 60 cases at from 50s. and upwards for rather woody and false-packed.

BUCHU.—All desirable parcels appear to have been cleared off this market, and nothing but yellow leaf is obtainable. Several weeks have passed without arrivals, and if there should be war in South Africa this is an article that would be affected.

CAMPHOR.—Crude is quiet with an easier tendency at 132s. per cwt. for Japanese on the spot, and 130s to 131s. c.i.f. from importers. There are sellers of Chinese at 124s. to 125s. spot, and buyers at about 122s. For arrival the cable quotation is out of all proportion. Both German and English refined is in good inquiry.

CANNABIS INDICA.—Firmer, nothing now being obtainable under 4½d. to 4¾d. per lb. for good tops. The last business done was at 4d.

CHAMOMILES.—Belgian flowers have advanced about 15s. per 100 kilos. this week, and for finest as much as 70s. to 73s. per cwt. is asked. For seconds 67s. 6d. London terms is wanted, or 2s. more than last week. This is a season of poor quality and dearer prices.

Caesar & Loretz in their September report state that this year at the beginning of the gathering, especially in South Germany, the weather was very unsatisfactory. The qualities suffered considerably, but were bought by over-zealous buyers at prices which they certainly did not merit. This year's harvest in South and Middle Germany is very limited, and that of the other provinces small. However, the conditions in other chamomile producing countries have been more favourable. Hungary and Italy especially have reported fairly large harvests. Although these chamomiles on the whole are of very low qualities they satisfy a considerable part of the large export demands. They believe that prices are more likely to rise than to fall. There seems little likelihood of a second autumn harvest, on account of the recent great heat and dryness of late weeks.

CINCHONA.—The exports from Ceylon from January 1 to August 29 were:—

	1899	1898	1897	1896
Lbs.	474,233	672,290	486,546	860,533

The total weight of the bark to be offered at the Amsterdam auctions next week is 639,424 kilos. (against 688,464 kilos. in August), containing the equivalent of 29,395 kilos. (1,029,210 ozs.) quinine sulphate. Of this amount 26,017 kilos. is in the manufacturing-bark, and the remaining 3,378 kilos. in the pharmaceutical bark. The former contains an average yield of 5.25 per cent. of quinine sulphate, against 5.60 per cent. in August, and 5.21 per cent. for the ten auctions of 1898. The shipments of bark from Java for the first fortnight of September were 740,000 Amsterdam lbs.

COCAINE.—A considerable business has been done this week, mostly in second-hands. The amount is estimated in one quarter at about 5,000 oz., and the prices range from 16s. 6d. to 17s. per oz. The latter figure was paid yesterday. Stocks in second-hands are now much reduced. On 'Change to-day there were rumours of a further impending advance of 2s. per oz., and manufacturers are meanwhile holding back; the advance is likely to take place before the end of the week.

COCOA-BUTTER.—The auction to be held in Amsterdam on October 3 will consist of 75 tons Van Houten's, 3 tons Hamer brand, and 1 ton Helm. At London on the same date 60 tons Cadbury's will be offered.

CODEINE.—Makers advanced their quotations at the close of last week to 13s. to 13s. 3d. per oz. in wholesale quantities for pure, and 1s. per oz. less for the salts.

COLOCYNTH.—The market quotation is 1s. 7d. to 1s. 8d. per lb. spot, and a fair quantity has been placed this week, one broker having almost cleared his offerings.

DRAGON'S-BLOOD.—Business since the auctions has been chiefly confined to reed gum. Five cases offered in auction last week, and for which 9l. was bid and refused, has since changed hands for export at a figure which has not transpired, but, we understand, the price was in the neighbourhood of ten guineas per cwt.

ERGOT OF RYE.—Quiet, with offers of Russian at 2s. 1d. to 2s. 3d. per lb. c.i.f.

GALLS.—Unchanged, but firm, with small sales of Persian blue at full prices, and green at 57s. 6d. per cwt. Reports concerning the new crop are conflicting, but generally point to a scarcity next season. Quotations for new Chinese crop appear to be too high for business.

Chinese advices, dated August 7, report declining prices for old crops, as new crop is near at hand. The exports from Shanghai during July were 896 piculs, the bulk of which went to Hamburg.

GAMBOGE.—A few cases of good picked lump have changed hands since the auctions, at 8s. 12s. 6d. to 8s. 15s. per cwt.

GLYCERIN.—With the approach of the active consuming season refiners have again advanced their quotations, and now quote from 53s. to 55s. per cwt. for English double-distilled, s.g. 1260, and from 54s. upwards for German. Crude is worth 39s. per ton. In second-hand there are sellers at less, but makers are not at all keen sellers.

GUM ARABIC.—In so-called Persiau insoluble sorts, business has been done at 17s. 6d. per cwt. for "unworked," 19s. to 21s. for "worked," and 14s. for block. Fair picked Trieste thirds have sold at 6s. 10s. per cwt.; fine soft Turkey sorts at 80s., and red pickings at 47s. 6d. to 50s. per cwt.

GUM MASTICH.—Retail lots of clean pale tear have been placed at 1s. 6d. to 1s. 7d. per lb. Supply continues large, and less would be accepted for quantity. New crop is expected in October.

GUM TRAGACANTH.—Business continues in Persian qualities ranging between 9s. and 12s. per cwt., but supplies of these grades are now in small compass. Small sales of Bussorah hog-gum are also reported at full values, and Syrian at 30s. per cwt.

GUMS, VARNISH.—Heavy supplies were catalogued at auction to-day, including 3,825 packages Kauri, 2,371 of copal, 613 damar, &c. Kauri was in fair demand, sales being chiefly confined to the best qualities at steady rates. Very little copal, damar, and animi was disposed of. The following rates were paid:—

KAURI.—Good bold pale scraped, 12s. to 14s. 10s. per cwt.; fine pale hard Dial, 12s. 12s. 6d.; brown bold scraped, 8s. 5s. to 8s. 12s. 6d.; fine pale hard scraped Bush, 7s. 17s. 6d.; good pale-chopped, 7s. 7s. 6d. to 8s.; good bold three-quarter scraped, 5s. 5s. to 6s. 12s. 6d.; fine bold brown, 4s. 19s. to 5s. 5s.; good half-scraped, 70s. to 80s.; brown chips, 50s. and 70s., and 3 bags at the low figure of 40s.; fair East Coast chips, 65s. to 72s.; good pale chips, 91s.; and Bush ditto, 65s.; fine pale dust, 42s.; pale East Coast dust, 34s. to 35s.; dark pickings, 18s.; Bush pickings, 25s. per cwt.

COPAL.—Fine hard pale pinky, 62s. 6d.; ditto yellowish, 52s. to 56s.; block ditto, 40s.; very pinky and yellowish mixed, 46s.; block ditto, 35s.; ordinary yellow block, 26s. to 27s.; medium bold even clean soft, 22s. 6d.; bold 1-inch chips, 28s.; and dark mixed chips, 14s. per cwt.

ANIMI.—Zanzibar fine bold beans sold at dearer rates—viz., 7s. 15s. per cwt.; fair to good bold Demerara, slightly coated, 5s. 17s. 6d.; low crushed Panama, 34s.

DAMAR.—Common dark small washings, 24s. to 25s. per cwt., and Singapore peas 53s. without reserve.

INSECT-FLOWERS.—The market in Trieste is reported steady, with owners endeavouring to hold for better prices, but at present demand is slow. The stock in Trieste at the end of August was 294,100 kilos., against 264,000 kilos. at the end of July. There arrivals are large in consequence of farmers wanting money, and are expected to fall off later on; although the actual stock is heavy, holders are not inclined to believe in lower prices this season. The receipts in August were 99,800 kilos., and the deliveries 70,400 kilos. The following are the current quotations f.o.b. Trieste:—Open flowers, 44s. to 46s.; half-open, 51s. to 72s.; closed, 85s. to 93s.; and "wild," 106s. to 118s. per cwt.

IPECACUANHA.—Unchanged. About 10 bales fair Rio were sold privately in the auction-room last week at 14s. 6d. per lb., and since then there have been one or two small sales at this figure. About 6 bales and cases of fine picked and washed Rio offered in auction have since been sold at 15s. per lb. For Cartagena the holders now require 11s. per lb.

We hear that in the new German Pharmacopœia an emetic limit will be fixed—viz., 24 per cent. This really means total

alkaloid, as on the Continent no distinction is yet made between emetine and cephaelium.

LYCOPODIUM.—Very high and scarce, owing to the small harvest in Russia; in Hamburg 297s. m. to 300m. per 100 kilo. is asked. Here 1s. 1½d. is wanted.

MANNA.—Finest flake of new crop is quoted 2s. per lb., f.o.b. Palermo, in original cases. Weather has been very unfavourable for the new, and Palermo advices report a scarcity.

MENTHOL.—About 3d. per lb. dearer, most holders now asking from 7s. 7½d. to 8s. per lb., on the spot; for arrival 7s. 6d. to 7s. 7d. per lb., c.i.f., is asked for 500-lb. lots, with buyers at 7s. 4½d. There is a fair inquiry here.

MORPHINE remains in good demand, makers quoting 5s. per oz. for hydrochloride in powder, and 5s. 2d. for crystals. In second-hands there are sellers at 4s. 8d. to 4s. 9d. for prompt delivery.

OIL, ANISE, STAR.—Quiet, at 5s. 11d. to 6s. per lb. spot, which figures are lower than the arrival-price.

OIL, CITRONELLA.—In brisk inquiry, mostly for forward shipment, ton lots having changed hands at 10½d. per lb. in drums for January-March delivery.

The Ceylon exports for the week ending August 29 were 152,729 lbs., and from January 1 to August 29 they were:—

1899	1,98	1897	1896
Lbs. 928,178	1,021,626	781,832	755,411

OIL, COD LIVER.—No important business has been transacted this week, and in the absence of business, the quotation is nominal. Arrivals continue heavy.

BERGEN, September 16.—The market is inclined to be somewhat firmer, as stocks in first hands are getting short owing to the heavy shipments. There is, however, no actual change in the quotations as yet, and 54s. per barrel, f.o.b., will still buy. The exports from Bergen up to date have been 9,517 barrels against 5,532 at the same time last year.

OILS, FIXED.—Linseed has advanced 6d. since last week, pipes on the spot now being quoted 22s. per cwt., and barrels 22s. 4½d. Rape is firm but unchanged at 23s. spot, refined 24s. 3d., and Ravigon 19s. 6d. Cotton rather firmer at 16s. 3d. to 16s. 4½d. per cwt. spot, and refined 17s. 9d. to 19s. 6d. for ordinary casks. Cocoanut, Ceylon 25s. for pipes, spot, and Cochin 29s. 6d. Petroleum, both American and Russian, are firm but unchanged at last week's quotations.

OIL, LEMONGRASS.—Firmer, sellers now asking 3d. to 3½d. per oz. spot.

OPIUM.—A good business has been done this week, and prices have advanced from 3d. to 6d. per lb. on an average; the transactions have mostly been in manufacturing and druggists' descriptions; for "soft-shipping" kinds 10s. 3d. to 10s. 9d. per lb. spot has been paid. In Persian, small transactions are also reported at slightly higher prices—viz., 12s. 3d. to 12s. 6d. per lb. for finest and 11s. 6d. for medium grades. It is reported that the arrivals of Turkey new-crop are at once bought up, if of good quality.

SMYRNA, September 8.—The market has been quiet this week, with sales of 3 cases only, at 8s. 10d. per lb., f.o.b., for new Karahissar and 8s. 9d. for old Karahissar. Unless buyers continue to respond at last week's high prices, a decline of 2d. to 3d. per lb. is expected. There are some fair-sized orders in the market, limited at 8s. 1d. to 8s. 2d. for new and 8s. 3d. to 8s. 6d. for old manufacturing descriptions, so that, should the market decline as expected, there may be some good buying, and prices will advance. A few heavy showers of rain are required to prepare to ground for the autumn sowings, and if this takes place an easier market is likely. The arrivals of opium amount to 1,611 cases, against 778 cases last year. The following are the nominal f.o.b. quotations:—New current tale quale, 8s. 4d.; slightly ditto, 8s. 5d.; new Karahissar slightly, 8s. 8d.; Dutch grades, 9s.; old manufacturing tale quale, 8s. 6d. to 8s. 8d.; and selected ditto, 8s. 8d. to 8s. 9d. per lb.

CONSTANTINOPLE, September 15.—Owing to abstention of buyers in Smyrna, that market has taken a weaker turn, and if buyers continue to hold off 8s. 2d. and 8s. 3d., f.o.b., for Adette and Karahissar may be touched. It is not likely that prices will go lower than this, as there is no doubt that both London and the U.S. will recommend purchase if values touch this level. Constantinople market has been more active than Smyrna, and sales amount to 30 to 40 cases druggists' at the equivalent of 8s. 2d. to 8s. 3d. per lb., f.o.b.; and 8s. 4d. to 8s. 5d. for Balikissar. This year's crop of soft-shipping has turned out shorter

than was expected, and quality is also very defective. About 8 cases Zilles have been sold at 8s. 10d., and there are further sellers at this. We have all along maintained that this year's crop has not yielded over 6,000 to 6,500 cases, but have now come to the conclusion that the actual yield has been under 6,000—probably nearer 5,800—but notwithstanding this, we see no reason for any marked upward move so long as buyers feel their way cautiously and do not rush into buying heavily. Prospects for fall sowings will be very favourable if rain which has fallen here has spread inland.

OTTO OF ROSE.—Dealers report a fair demand at current rates—viz., from 22s. to 24s. net per T. oz. f.o.b., for finest quality for not less than 50 oz. lots. The tendency is firm, as there has been good buying in consequence of the lower prices this season, and stocks, although not low, are in smaller compass in Bulgaria. From Kézanlik, under date of September 12, we hear that the market is very firm, and that if the present demand continues prices may advance.

PHENACETIN.—Still weak, and the pressure to sell on the part of holders continues. Price is nominally unchanged at 3s. 6d. per lb. for good brands of crystals and powder.

QUININE.—Continued depression prevailed in this market until Wednesday, and a further decline of about 1d. per oz. has taken place on the week in consequence of the heavy bark shipments from Java during the first half of September. The market closed last week at 11½d. per oz. spot, October 11½d., and December, 11½d., with a moderate business in the latter position, and since then the lowest point touched was on Tuesday, when there were sellers at 10½d. On Wednesday, however, the market recovered, and this figure was withdrawn, 10½d. being the spot price, and for December delivery (for which position most business has been done), there were sellers at 10½d. with buyers at 10½d. per oz. Today the market is quiet, with sellers at 10½d. spot.

SAFFRON.—Slightly easier, there being sellers of finest Valencia at 42s. to 44s. per lb. spot; best Alicante is worth about 26s. spot.

SCAMMONIUM.—Firsts are not now to be had, while for seconds there is no demand. Supplies of scammoni-root are small, the quotations ranging from 19s. to 21s. per cwt.

SEEDS.—Anise quiet, with small sales of Russian at 18s. 6d. per cwt. For Spanish, 29s. 6d., c.i.f. t.e.m., is asked, but no business has been reported. Cumin firm: 27s. 6d. per cwt. is the quotation for Morocco, and 32s. for good Maltese. Caraway steady, at 23s. to 25s. per cwt., for common to good Dutch. Coriander firm, at 11s. per cwt. for Morocco. Canary quiet, but quotations are unchanged. Linseed is dearer; bold Morocco is worth 50s. to 52s. per qr., and good Dutch 49s. per qr.

SENEGA.—The "cornering" of this article in the United States has led to an increased inquiry here, but as there is little or no stock in London business cannot be effected. The nominal figure is 1s. 9d. per lb.

SENNA.—A fair amount of business has been done in Alexandrian siftings, up to 3½d. per lb. having been paid. For good picked leaf 9d. is wanted. Low bids for broken leaf have been refused.

SHELLAC.—A very quiet tone has prevailed throughout the week, and on the spot the market is easier with sellers of fair second orange TN at 63s. 6d. per cwt.; for arrival there are sellers 62s. to 62s. 6d., c.i.f. October-December shipment.

SOY.—Fair Chinese continues in request at the recent reduction—viz., 1s. 2d. per gal.

SPICES.—Business generally has been quiet this week, but quotations remain steady. Cochinchin *Ginger*, at auction on Wednesday, sold at 77s. per cwt. for bold cut, and at 32s. for good small cut, the rough descriptions being bought in. All the small quantity of Jamaica offered was withdrawn at prices above the biddings. Zanzibar *Cloves* have fluctuated slightly, the quotation for October-December delivery being 3½d. per lb., and for January-March 3½d. A few cases of good red Penang sold at 6½d. per lb. *Pimento* firm; fair to good clean partly sold at 3½d. to 3½d. per lb. *Pepper* steady; Singapore black sells at 5½d. per lb. on the spot, the quotation for shipment being 5½d. to 5½d., according to position. *Lampong* has been sold at 5½d. on the spot. Singapore white

is worth 8½d. on the spot, and 9½d. for October-December steamer. Penang white, 8½d. on the spot, and 8½d. to arrive.

The exports of chillies from Zanzibar in 1898 were 332,658 lbs. (3,897.), against 633,367 lbs. (7,155.).

SULPHONAL.—Makers report a quiet market at the official quotation of 18s. 6d. per lb., for 10-lb. lots, and 9d. less for 1-cwt. quantities. The supply in second-hand appears to be almost exhausted, although one holder is still able to offer a little at 14s. to 14s. 6d.

SULPHUR.—Steady at 67. 5s. per ton for foreign flowers, roll 6d., recovered 96s., f.o.b., and best thirds 80s. c.i.f. The stock in Sicily at the end of August was 234,978 tonnes against 176,423 tonnes in 1898 (1 tonne = 13 Sicil cantars).

TURMERIC.—Very firmly held and in good inquiry; for Bengal, the stock of which is very low, 21s. 6d. per cwt. is wanted; fair bright Madras finger has sold at 30s., and for Cochin split bulbs 9s. 6d. to 10s. has been paid.

WAX, JAPAN.—Quiet, at 30s. per cwt. for good pale squares on the spot.

Eudesmol.

By HENRY G. SMITH, F.C.S.

THIS is the crystalline camphor which Mr. R. T. Baker and the author isolated two years ago from eucalyptus oil. They have since found the body in the oil of many eucalypts, and consider that it should be present at certain times of the year in all oils which are eventually rich in eucalyptol. In a paper recently communicated to the Royal Society of New South Wales, the author states that the formula ($C_{10}H_{16}O$) shows the body to be isomeric with camphor, but it has the oxygen atom combined in a different manner. It does not appear to be ketonic, and it cannot be reduced by sodium in alcohol or by other methods. It is optically inactive. It forms a dinitro-compound and a dibromide, but does not form a nitrosochloride. It melts at 79-80° C. when perfectly pure, but has a tendency to form products having a lower melting-point. On oxidation with dilute nitric acid, camphoronic acid is formed, but no camphoric acid. The author adduced evidence to show eudesmol to be intermediate in the formation of eucalyptol, and that eucalyptol is derived directly from the fraction containing endesmol if the oil be kept in the crude condition for some time under ascertained conditions. Oxygen is necessary to this alteration. It was shown that the oxygen atom enters the eucalyptol molecule during the formation of eudesmol, and that by the natural alteration of the high-boiling fraction of oils containing eudesmol (*E. macrorhyncha*, for instance) eucalyptol is formed. *Eucalyptus camphora* oil was found to be rich in eudesmol at the time of year when distilled. The probable reason why eucalyptus oils allied to *E. globulus* do not contain phellandrene was described, and it was shown that the oils from other groups of eucalypts are dextrorotatory when their maximum eucalyptol-content is reached, and that they do not at that time contain phellandrene, although at certain times of the year phellandrene may be present.

The synthesis by Peikin and Thorpe shows camphoronic acid to be trimethyl tricarballylic acid, as was first suggested by Bredt; and as eucalyptol is derived from endesmol, and eudesmol forms camphoronic acid, the question is raised whether Brübl's formula for eucalyptol is correct. The author suggests that the oxygen atom in eudesmol is quadrivalent, and that the peculiarity of eucalyptol may be thus accounted for. From the formula suggested for endesmol—camphoronic acid, as trimethyl tricarballylic acid, can be constructed.

GOVERNOR STERNDALE, of St. Helena, in his recent Blue-book for 1898, reports that there is a cinchona-plantation on the island at Diana's Peak, which was started in the time of Sir Charles Elliott, a former governor. It has been neglected, and the trees have run wild, although they thrive. The cultivation of cinchona in St. Helena says Governor Sterndale, would not be profitable at the prices now ruling for quinine. However, here is a chance for some enterprising planter to make the island still more famous.